Rocky Flats Environmental Technology Site

RECONNAISSANCE LEVEL CHARACTERIZATION REPORT (RLCR)

CLOSURE PROJECT FOR BUILDINGS 112, 223, 367, 553, T371A, T371C, T371D, T371E, T371F and T760A

REVISION 0

October 7, 2002

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REVISION 0

October 7, 2002

Reviewed by: _____ Date 10/9/02
Paul Miles, Quality Assurance

Reviewed by: _____ Date 10/9/02
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Approved by: _____ Date 10/9/02
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ABBREVIATIONS/ACRONYMS

ACM	Asbestos containing material
Be	Beryllium
CDPHE	Colorado Department of Public Health and the Environment
CERCLA	Comprehensive Emergency Response, Compensation and Liability Act
$DCGL_{EMC}$	Derived Concentration Guideline Level – elevated measurement comparison
$DCGL_W$	Derived Concentration Guideline Level – Wilcoxon Rank Sum Test
D&D	Decontamination and Decommissioning
DDCP	Decontamination and Decommissioning Characterization Protocol
DOE	U S Department of Energy
DPP	Decommissioning Program Plan
DQA	Data quality assessment
DQOs	Data quality objectives
EPA	U S Environmental Protection Agency
FDPM	Facility Disposition Program Manual
HVAC	Heating, ventilation, air conditioning
HSAR	Historical Site Assessment Report
IHSS	Individual Hazardous Substance Site
IWCP	Integrated Work Control Package
K-H	Kaiser-Hill
LBP	Lead-based paint
LLW	Low-level waste
MARSSIM	Multi-Agency Radiation Survey and Site Investigation Manual
MDA	Minimum detectable activity
MDC	Minimum detectable concentration
NORM	Naturally occurring radioactive material
NRA	Non-Rad-Added Verification
OSHA	Occupational Safety and Health Administration
PARCC	Precision, accuracy, representativeness, comparability and completeness
PCBs	Polychlorinated Biphenyls
PDS	Pre-demolition survey
QC	Quality Control
RCRA	Resource Conservation and Recovery Act
RFCA	Rocky Flats Cleanup Agreement
RFETS	Rocky Flats Environmental Technology Site
RFFO	Rocky Flats Field Office
RLC	Reconnaissance Level Characterization
RLCR	Reconnaissance Level Characterization Report
RSP	Radiological Safety Practices
SVOCs	Semi-volatile organic compounds
TCLP	Toxicity Characteristic Leaching Procedure
TSA	Total surface activity
VOCs	Volatile organic compounds

EXECUTIVE SUMMARY

A Reconnaissance Level Characterization (RLC) was performed to enable facility "Typing" per the DPP (10/8/98) and compliant disposition and waste management of Buildings 112, 223, 367, 553, T371A, T371C, T371D, T371E, T371F and T760A Because these facilities were anticipated to be Type 1 facilities, the characterization was performed in accordance with the Pre-Demolition Survey Plan (MAN-127-PDSP) All facility surfaces were characterized in this RLC, including the interior and exterior surfaces [i e , floors (slabs), walls, ceilings and roofs] Environmental media beneath and surrounding the facilities was not within the scope of this RLCR and will be addressed at a future date using the Soil Disturbance Permit process and in compliance with RFCA

The RLC encompassed both radiological and chemical characterization to enable compliant disposition and waste management pursuant to the D&D Characterization Protocol (MAN-077-DDCP) The characterization built upon physical, chemical and radiological hazards identified in the facility-specific Historical Site Assessment Reports

Results indicate that no radiological contamination exists in excess of the PDSP unrestricted release limits of DOE Order 5400 5 All beryllium sample results were less than the investigative limit of 0 1 $\mu g/100cm^2$ Both friable and non-friable asbestos containing building materials were identified in Building 112, and non-friable asbestos containing building material in Building 553 and T371A

Any PCB ballasts and asbestos containing materials will be managed and disposed of in compliance with Environmental Protection Agency (EPA) and Colorado Department of Public Health and Environment (CDPHE) regulations All demolition debris will be managed in compliance with regulations governing PCBs (40 CFR 761), and Environmental Compliance Guidance #27, *Lead-Based Paint (LBP) and Lead-Based Paint Debris Disposal,* as applicable All concrete associated with these facilities meet the criteria for recycling concrete per the RFCA RSOP for Recycling Concrete

Based upon the results of this RLCR, Buildings 112, 223, 367, 553, T371A, T371C, T371D, T371E, T371F and T760A are considered to be Type 1 facilities To ensure that the facilities remain free of contamination and that RLC data remain valid, isolation controls have been established, and the facilities have been posted accordingly

1 INTRODUCTION

A Reconnaissance Level Characterization (RLC) was performed to enable compliant disposition and waste management of Buildings 112, 223, 367, 553, T371A, T371C, T371D, T371E, T371F and T760A Because these facilities were anticipated to be Type 1 facilities, a PDS characterization was performed All facility surfaces were characterized in this RLC, including the interior and exterior surfaces of the facilities [i e , floors (slabs), walls, ceilings and roofs] Environmental media beneath and surrounding the facilities was not within the scope of this RLC Report (RLCR) and will be addressed at a future date using the Soil Disturbance Permit process and in compliance with RFCA

As part of the Rocky Flats Environmental Technology Site (RFETS) Closure Project, numerous facilities will be removed, among these are Buildings 112, 223, 367, 553, T371A, T371C, T371D, T371E, T371F and T760A The locations of this facility are shown in Attachment A These facilities no longer support the RFETS mission and need to be removed to reduce Site infrastructure, risks and/or operating costs

Before the facilities can be removed, a Pre-Demolition Survey (PDS) must be conducted, this document presents the PDS results The PDS was conducted pursuant to the Decontamination and Decommissioning Characterization Protocol (MAN-077-DDCP) and the Pre-Demolition Survey Plan for D&D Facilities (MAN-127-PDSP) The PDS built upon physical, chemical and radiological hazards identified in the facility-specific Historical Site Assessment Reports

1.1 Purpose

The purpose of this report is to communicate and document the results of the PDS effort PDSs are performed before building demolition to define the final radiological and chemical conditions of a facility Final conditions are compared with the release limits for radiological and non-radiological contaminants PDS results will enable project personnel to make final disposition decisions, develop related worker health and safety controls, and estimate waste volumes by waste types

1.2 Scope

This report presents the pre-demolition radiological and chemical conditions of Buildings 112, 223, 367, 553, T371A, T371C, T371D, T371E, T371F and T760A Environmental media beneath and surrounding the facilities is not within the scope of this RLCR and will be addressed using the Soil Disturbance Permit process and in compliance with RFCA

1.3 Data Quality Objectives

The Data Quality Objectives (DQOs) used in designing this RLC were the same DQOs identified in the Pre-Demolition survey Plan for D&D Facilities (MAN-127-PDSP) Refer to section 2 0 of MAN-127-PDSP for these DQOs

2 HISTORICAL SITE ASSESSMENT

Facility-specific Historical Site Assessments (HSAs) were conducted to understand the facility histories and related hazards The assessment consisted of facility walkdowns, interviews, and document review, including review of the Historical Release Report (refer to the D&D Characterization Protocol, MAN-077-DDCP) Results were used to identify data gaps and needs, and to develop radiological and chemical characterization packages Results of the facility-specific HSAs were documented in facility-specific Historical Site Assessment Reports (HSARs) Refer to Attachment B for a copies of the Building 112, 223, 367, 553, T371A, T371C, T371D, T371E, T371F and T760A HSARs In summary, the HSARs identified no potential for radiological and chemical hazards, except the potential for asbestos containing materials and PCBs in paint and light ballasts

3 RADIOLOGICAL CHARACTERIZATION AND HAZARDS

Buildings 112, 223, 367, 553, T371A, T371C, T371D, T371E, T371F and T760A were characterized for radiological hazards per the PDSP Radiological characterization was performed to define the nature and extent of radioactive materials that may be present on the facility surfaces Measurements were performed to evaluate the contaminants of concern Based upon a review of historical and process knowledge, building walk-downs, and MARSSIM guidance, Radiological Characterization Plans were developed during the planning phases that describe the minimum survey requirements (refer to the RISS Characterization Project files for facility specific Radiological Characterization Plans)

Thirteen radiological survey packages were developed for the interior and exterior surfaces of Buildings 112, 223, 367, 553, T371A, T371C, T371D, T371E, T371F and T760A The survey packages were developed in accordance with Radiological Safety Practices (RSP) 16 01, *Radiological Survey/Sampling Package Design, Preparation, Control, Implementation and Closure* Total surface activity (TSA), removable surface activity (RSA), and scan measurements were collected in accordance with RSP 16 02 *Radiological Surveys of Surfaces and Structures* Radiological survey data were verified, validated and evaluated in accordance with RSP 16 04, *Radiological Survey/Sample Data Analysis* Quality control measures were implemented relative to the survey process in accordance with RSP 16 05, *Radiological Survey/Sample Quality Control* Radiological survey data, statistical analysis results, and survey locations are presented in Attachments C1-C13, Radiological Data Summary and Survey Maps The radiological survey unit packages are maintained in the RISS Characterization Project files

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TSA measurements, RSA measurements, and scan surveys were performed on the ten facilities Fifteen exterior TSA measurements on six facilities indicated elevated activity above the transuranic $DCGL_W$ values Elevated TSA measurements were identified and investigated as follows

B223	area was sealed, allowed to decay, and then re-surveyed
B367	metal roof & wall coupon samples were collected & gamma-spec analysis performed
B553	transite roof sample was collected, and gamma-spec analysis performed
T371F	metal roof coupon sample was collected, and gamma-spec analysis performed
T371D	metal roof coupon sample was collected, and gamma-spec analysis performed
T760A	metal roof coupon sample was collected, and gamma-spec analysis performed

Samples collected and analyzed confirmed all elevated activity was due to uranium and other naturally occurring isotopes All elevated readings were less than the uranium $DCGL_w$ values Refer to the data summaries in Attachments C1-C13 for further investigation results

PDS data confirmed that the facilities do not contain radiological contamination above the surface contamination guidelines provided in the PDSP Isolation control postings are displayed on the building entrances to ensure no radioactive materials are introduced

4 CHEMICAL CHARACTERIZATION AND HAZARDS

Buildings 112, 223, 367, 553, T371A, T371C, T371D, T371E, T371F and T760A were characterized for chemical hazards per the PDSP Chemical characterization was performed to determine the nature and extent of chemical contamination that may be present on or in the facilities Based upon a review of historical and process knowledge, visual inspections, and PDSP DQOs, additional sampling needs were determined Chemical Characterization Packages (refer to RISS Characterization Project files) were developed during the planning phases that describe sampling requirements and the justification for the sample locations and estimated sample numbers Contaminants of concern included asbestos, beryllium, RCRA/CERCLA constituents, and PCBs Refer to Attachment D, Chemical Data Summaries and Sample Maps, for details on sample results and sample locations

4.1 Asbestos

A survey of building materials suspected of containing asbestos was conducted in the aforementioned buildings in accordance with the PDSP A CDPHE-certified asbestos inspector conducted the inspection and sampling in accordance with the *Asbestos Characterization Protocol, PRO-563-ACPR, Revision 1* Building materials suspected of containing asbestos were identified for sampling at the discretion of the inspector

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Sitex Environmental, Inc completed a comprehensive asbestos inspection of Building 112 in April of 1996 (refer to Attachment D, "Chemical Data Summaries and Sample Maps") which identified various non-friable and friable asbestos containing building materials Since Sitex did not sample the paint on the cinderblock walls or the window caulking in Building 112, additional bulk samples were taken which showed that each contained asbestos > 1% by volume Asbestos bulk sample analysis of the black tar roofing material on Building T371A also revealed the presence of non-friable asbestos, >1% by volume The exterior walls and roof of Building 553 are composed of corrugated Transite panels, typically asbestos containing, and were not sampled but assumed to be ACM Friable and non-friable asbestos containing materials were identified in the following buildings

Building 112

Transite Wall Panel	Category 2 Non-friable	3,500 square feet, 583 cu ft
Paint on Cinderblock Walls	Category 2 Non-Friable	12,000 square feet, 250 cu ft
Window Caulking	Category 2 Non-Friable	420 lineal feet, 35 cu ft
Exterior Finishing Surfaces	Category 2 Non-Friable	3,000 square feet, 125 cu feet
Duct Insulation	Friable	375 square feet, 35 cu ft
Vibration Isolators	Category 2 Non-Friable	20 square feet, 2 cu ft
Vinyl floor tile and mastic	Category 1 Non-Friable	6,000 square feet, 500 cu ft
Thermal Systems Insulation	Friable	1,284 lineal feet, 107 cu ft

Building T371A

Silver, black tar shingles	Category 1 Non-Friable	2,217 square feet, 370 cu ft

Building 553

Corrugated Transite Panels	Category 2 Non-Friable	3,378 square feet, 563 cu ft

In Building 367, no building materials suspected of containing asbestos were identified, and therefore no samples were taken In Buildings 223, T371C, T371D, T371E, T371F, and T760A all lab results for building materials suspected of containing asbestos were < 1% by volume Asbestos laboratory analysis data and location maps are contained in Attachment D, "Chemical Data Summaries and Sample Maps " Maps that did not contain any sample locations were not included in this report

4.2 Beryllium (Be)

Based on the HSAR and personnel interviews, these buildings were anticipated Type 1 facilities There was not, however, adequate historical and process knowledge to conclude that beryllium was not used or stored in these buildings Therefore, biased beryllium sampling was performed in accordance with the PDSP and the *Beryllium*

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Characterization Procedure, PRO-536-BCPR, Revision 0, September 9, 1999 Biased sample locations corresponded with the most probable areas of dust accumulation (including beryllium dust), assuming airborne deposition

All beryllium smear sample results were less than 0 1 μg/100cm^2 Beryllium laboratory sample data and location maps are contained in Attachment D, "Chemical Data Summaries and Sample Maps " Maps that did not contain any sample locations were not included in this report

4.3 RCRA/CERCLA Constituents [including metals and volatile organic compounds (VOCs)]

Based on a review of the HSARs and facility walkdowns, there was no indication that the facilities have been contaminated by RCRA/CERCLA constituents due to past operations or spills, therefore, RCRA/CERCLA constituent sampling was not performed in these facilities B367 had a faint odor of pesticides, similar to a garden aisle at a home improvement store, but there was no visual evidence of remaining product or stains

Sampling for lead in paint was not performed Environmental Waste Compliance Guidance #27, *Lead-based Paint (LBP) and Lead-based paint Debris Disposal*, states that LBP debris generated outside of currently identified high contamination areas shall be managed as non-hazardous (solid) wastes, and additional analysis for characteristics of hazardous waste derived from LBP is not a requirement for disposal There were no high contamination areas in these facilities

The facilities may contain RCRA regulated materials such as mercury switches, fluorescent lamps, and leaded glass The lead and cadmium bricks that were in B112 have been removed A thorough inspection of the facilities will be made, and all regulated materials will be removed prior to demolition or sale

4.4 Polychlorinated Biphenyls (PCBs)

Based on the HSARs, interviews and facility walkdowns, no PCB-containing equipment was ever present in the buildings, making the potential for PCB contamination resulting from spills highly unlikely Therefore, PCB sampling was not performed or required

Based on the age of Buildings 112, 367, T371 trailers and 553 (constructed prior to 1980), paints used may contain PCBs, and painted surfaces will need to be disposed of as PCB Bulk Product Waste Painted concrete surfaces can be used as backfill on site in accordance with approval received from EPA in November 2001 (letter from K Clough, US EPA Region 8, to J Legare, DOE RFFO, 8EPR-F, Approval of the Risk-Based Approach for Polychlorinated Biphenyls (PCB)-Based Painted Concrete), provided the concrete meets the unrestricted-release criteria outlined in the Concrete Recycling RSOP

These facilities may contain fluorescent light ballasts containing PCBs, fluorescent light fixtures will be inspected to identify PCB ballasts during removal operations PCB ballasts will be identified based on factors such as labeling (e g , PCB-containing and

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non-PCB-containing), manufacturer, and date of manufacturing All ballasts that do not indicate non-PCB-containing are assumed to be PCB-containing

5 PHYSICAL HAZARDS

Physical hazards associated with Buildings 112, 223, 367, 553, T371A, T371C, T371D, T371E, T371F and T760A consist of those common to standard industrial environments and include hazards associated with energized systems, utilities, and trips and falls The facilities have been relatively well maintained and are in good physical condition, and therefore, does not present hazards associated with building deterioration Physical hazards are controlled by the Site Occupational Safety and Industrial Hygiene Program, which is based on OSHA regulations, DOE orders, and standard industry practices

6 DATA QUALITY ASSESSMENT

Data used in making management decisions for decommissioning of Buildings 112, 223, 367, 553, T371A, T371C, T371D, T371E, T371F and T760A and consequent waste management, are of adequate quality to support the decisions documented in this report The data presented in this report (Attachments C and D) were verified and validated relative to DOE quality requirements, applicable EPA guidance, and original DQOs of the project

In summary, the Verification and Validation (V&V) process corroborates that the following elements of the characterization process are adequate

- the *number* of samples and surveys,
- the *types* of samples and surveys,
- the sampling/survey process as implemented "in the field", and,
- the laboratory analytical process, relative to accuracy and precision considerations

Details of the DQA are provided in Attachment E

7 DECOMMISSIONING WASTE TYPES AND VOLUME ESTIMATES

The demolition and disposal of Buildings 112, 223, 367, 553, T371A, T371C, T371D, T371E, T371F and T760A will generate a variety of wastes Estimated waste types and waste volumes are presented below All wastes can be disposed of as sanitary waste, except asbestos containing material and PCB Bulk Product Waste There is no radioactive or hazardous waste Asbestos and PCB ballasts will be managed pursuant to Site asbestos and PCB abatement and waste management procedures

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Waste Volume Estimates and Material Types							
Facility	**Concrete** (cu ft)	**Wood** (cu ft)	**Metal** (cu ft)	**Corrugated Sheet Metal** (cu ft)	**Wall Board** (cu ft)	**ACM** (cu ft)	**Other Waste**
112	54,000	2,900	12,300	1,500	1,200	1,637	200 cu ft glass 30 cu ft plastic 600 cu ft carpet 200 cu ft ceramic tile
223	3,825	0	1,600	3,100	400	0	N/A
367	200	0	100	100	0	0	N/A
553	2,400	0	500	0	0	563	siding material 1,000
T371A	None	700	7,000	1,000	1,000	370	N/A
T371C	None	2,000	19,000	3,000	3,000	0	N/A
T371D	None	650	6,500	800	800	0	N/A
T371E	None	200	220	250	200	0	N/A
T371F	None	650	6,500	800	800	0	N/A
T760A	None	200	300	350	450	0	N/A

8 FACILITY CLASSIFICATION AND CONCLUSIONS

Based on the analysis of radiological, chemical and physical hazards, Buildings 112, 223, 367, 553, T371A, T371C, T371D, T371E, T371F and T760A are classified as RFCA Type 1 facilities pursuant to the RFETS Decommissioning Program Plan (DPP, K-H, 1999) The Type 1 classification is based on a review of historical and process knowledge, and newly acquired RLC data

The RLC of Buildings 112, 223, 367, 553, T371A, T371C, T371D, T371E, T371F and T760A was performed in accordance with the DDCP and PDSP, all PDSP DQOs were met, and all data satisfied the PDSP DQA criteria The buildings do not contain radiological or hazardous wastes Both friable and non-friable asbestos containing building materials were identified in Building 112, and non-friable asbestos containing building material in Building 553 and T371A and will be managed pursuant to Site and State management procedures

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Any PCB ballasts and asbestos containing materials will be managed and disposed of in compliance with Environmental Protection Agency (EPA) and Colorado Department of Public Health and Environment (CDPHE) regulations All demolition debris will be managed in compliance with regulations governing PCBs (40 CFR 761), and Environmental Compliance Guidance #27, *Lead-Based Paint (LBP) and Lead-Based Paint Debris Disposal,* as applicable

All concrete associated with these facilities meet the criteria for recycling concrete per the RFCA RSOP for Recycling Concrete Environmental media beneath and surrounding the facilities will be addressed at a future date using the Soil Disturbance Permit process and in compliance with RFCA

To ensure that the facilities remains free of contamination and that RLC data remain valid, isolation controls have been established, and the facilities have been posted accordingly

9 REFERENCES

DOE/RFFO, CDPHE, EPA, 1996 Rocky Flats Cleanup Agreement (RFCA), July 19, 1996

DOE Order 5400 5, "Radiation Protection of the Public and the Environment "

EPA, 1994 "The Data Quality Objective Process," EPA QA/G-4

K-H, 1999 Decommissioning Program Plan, June 21, 1999

MAN-131-QAPM, *Kaiser-Hill Team Quality Assurance Program*, Rev 1, November 1, 2001

MAN-076-FDPM, *Facility Disposition Program Manual*, Rev 3, January 1, 2002

MAN-077-DDCP, *Decontamination and Decommissioning Characterization Protocol*, Rev 3, July 15, 2002

MAN-127-PDSP, *Pre-Demolition Survey Plan for D&D Facilities*, Rev 1, July 15, 2002

MARSSIM - Multi-Agency Radiation Survey and Site Investigation Manual, December 1997 (NUREG-1575, EPA 402-R-97-016)

PRO-475-RSP-16 01, *Radiological Survey/Sampling Package Design, Preparation, Control, Implementation, and Closure*, Rev 1, May 22, 2001

PRO-476-RSP-16 02, *Pre-Demolition (Final Status) Radiological Surveys of Surfaces and Structures*, Rev 1, May 22, 2001

PRO-477-RSP-16 03, *Radiological Samples of Building Media*, Rev 1, May 22, 2001

PRO-478-RSP-16 04, *Radiological Survey/Sample Data Analysis for Final Status Survey*, Rev 1, May 22, 2001

PRO-479-RSP-16 05, *Radiological Survey/Sample Quality Control for Final Status Survey*, Rev 1, May 22, 2001

PRO-563-ACPR, Asbestos Characterization Procedure, Revision 0, August 24, 1999

PRO-536-BCPR, Beryllium Characterization Procedure, Revision 0, August 24, 1999

RFETS, Environmental Waste Compliance Guidance #25, Management of Polychlorinated Biphenyls (PCBs) in Paint and Other Bulk Product Waste During Facility Disposition

RFETS, Environmental Waste Compliance Guidance #27, Lead-Based Paint (LBP) and Lead-Based Paint Debris Disposal

RFCA Standard Operation Protocol for Recycling Concrete, September 28, 1999

RFETS, Historical Site Assessment Report for Buildings 223 and 553, May 2002

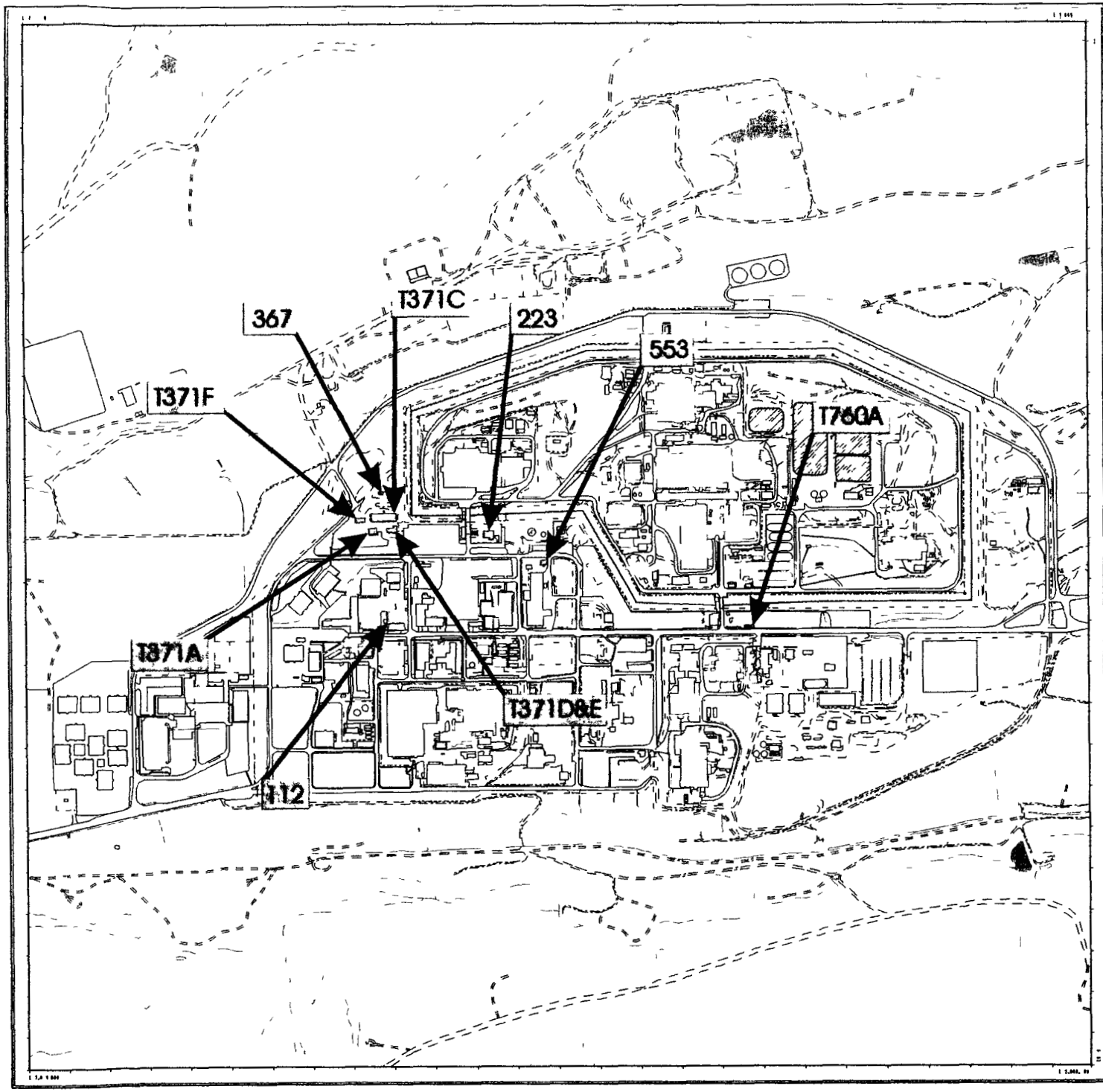
RFETS, Historical Site Assessment Report for Trailer T760A, July 2002

RFETS, Historical Site Assessment Report for Building 112, February 2002

RFETS, Historical Site Assessment Report for Area 3, Group 6, July 2002

ATTACHMENT A

Facility Location Map



Building Facilities
112, 223, 367, T371A T371C, T371D, T371E, T371F, 553, & T760A

Standard Map Features

- Buildings and other structures
- Solar Evaporation Ponds (SEPs)
- Lakes and ponds
- Streams, ditches, or other drainage features
- Fences and other barriers
- Paved roads
- Dirt roads

DATA SOURCE BASE FEATURES
Buildings, fences, hydrography roads and other structures from 1994 aerial fly-over data captured by EG&G RSL, Las Vegas.
Digitized from the orthophotographs. 1/95

Scale – 1 1240
1 inch represents approximately 1038 feet

State Plane Coordinate Projection
Colorado Central Zone
Datum: NAD27

U S Department of Energy
Rocky Flats Environmental Technology Site

GIS Dept. 303-966-7707

Prepared by
DynCorp
THE ART OF TECHNOLOGY

Prepared for
KAISER-HILL
CO. LLC

MAP ID FY 2002

September 18 2001

NT_Svr w:/projects/fy2002/02-0589/overview-Area3-G6.cdr

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ATTACHMENT B

Historical Site Assessment Reports

D&D RISS Facility Characterization
Historical Site Assessment Report
February 11, 2002, Rev. 0

Facility ID Building 112 (part of Area 3 – Group 5), Radiological Health (External/Internal Dosimetry and Radiological Records, west part of Building 112) and Plant Telecommunications (east part of Building 112)

Anticipated Facility Type (1, 2, or 3) Building 112 Type = 1

This facility - specific Historical Site Assessment (HSA) has been performed in accordance with
D&D Characterization Protocol, RFETS MAN-077-DDCP, latest version, and
Facility Disposition Program Manual, RFETS MAN-076-FDPM, latest version

Physical Description

Building 112 was constructed in 1953 Building 112 is located on the north side of Central Avenue at Fourth Street Building 112 has steel-reinforced poured concrete superstructure The Building 112 outer walls are steel -reinforced poured concrete The concrete walls extend approximately 36" below grade on south and west side of Building 112 The size of Building 112 is approximately 81 feet wide by 115 feet long and approximately 15 feet above ground at the top of the concrete parapet (a low wall or concrete rail/wall above the roof/deck to protect the roof) Building 112 has approximately 9,280 square feet of floor space The Building 112 floor is also a steel-reinforced poured concrete floor All of Building 112 rooms in the east half of the facility, have mostly concrete block walls and many of the walls are insulated and some of covered with ceramic tile, such as walk-in coolers dairy refrigerators, and meat refrigerated storage rooms Building 112 has a steel reinforced poured concrete roof deck with a built-up-roof sealed with tar and gravel over roof insulation Building 112 has a double door entrance on the southwest corner of the facility, which has an inside airlock and a second set of entry doors The north side of Building 112 has an elevated concrete slab/entry pad and single entry door The east side of Building 112 has a double-door dock entrance The Building 112 Dock is a steel-reinforced poured concrete dock-pad approximately 10 feet wide by 30 feet long and approximately 4 feet high above the ground

Historical Operations

Building 112 was designed and constructed as a Plant Cafeteria Facility and opened as such in 1953 Building 112 operated from 1953 until 1997 as a Plant Cafeteria Facility In 1997 Building 112 was converted from a Cafeteria to a Radiological Health Facility with External/Internal Dosimetry Lab and TLD Badge Counting Facility along with a Radiation Exposure Records Storage Facility The southeast corner of Building 112 has been a Telecommunications equipment and Operations Facility for approximately 25 years or more

Current Operational Status

Building 112 currently is in service as a Radiological Health Facility with External/Internal Dosimetry Lab and TLD Badge Counting Facility along with a Radiation Exposure Records Storage Facility The southeast corner of Building 112 is a Telecommunications equipment and Operations Facility Currently between the two departments described above, approximately 27 RFETS employees work in and/or out Building 112

Contaminants of Concern

Asbestos

Describe any potential, likely, or known sources of Asbestos

Building 112 has some asbestos containing materials (ACM) of construction in the form of wall, pipe, and roof insulation One interviewee said that one or more kitchen-type grease traps under the floor of Building 112 may contain some asbestos Building 112 has had some asbestos removal work performed, but both interviewees agreed that there were probably quite a lot of asbestos materials of construction left in the facility One interviewee said that he thought some of the painted walls had an asbestos under-coating The Industrial Hygiene Group (IHG) in T-130E has asbestos sample data and photographs of ACM materials of construction for Building 112 IHG in T-130E also has an asbestos management plan document for Building 112

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Beryllium (Be)

Describe any potential, likely, or known Be production or storage locations

Building 112 has no information on the RFETS Beryllium (Be) Areas Historical and Present list Interviewees felt that no Be materials were ever in Building 112

Summarize any recent Be sampling results

No known Be sampling has been conducted in Building 112

Lead

Describe any potential, likely, or known sources of Lead (e g , paint, shielding, etc)

Building 112 was constructed in 1953, therefore it may contain lead-based paints No lead operations were known to have occurred in Building 112 Lead bricks and other counting equipment uses lead-shielding around the counting chambers for the External Dosimetry TLD Badges The Building 112 Dosimetry Lab also used cadmium for shielding as well as the lead bricks

RCRA/CERCLA Constituents

Describe any potential, likely, or known sources of RCRA/CERCLA constituents (e g , chemical storage, waste storage, processes)

Building 112 was never used as a chemical storage facility Cleaning chemicals were used and stored in Building 112 Building 112 has a WSRIC Building 112 is not listed on "The Master List of RCRA Units" Broken cadmium and lead-contaminated TLD Badge parts are disposed of as hazardous waste

Describe any potential, likely, or known spill locations (and sources, if any)

No known chemical spills ever occurred in Building 112

Describe methods in which spills were mitigated if any

Unknown

PCBs

Describe any potential, likely, or known sources of PCBs (e g , light ballasts, paints, equipment, etc)

Building 112 may contain PCB/lead-based paints Building 112 has lighting ballasts that might contain PCBs No known equipment items containing PCBs, were ever located in Building 112

Describe any potential, likely, or known spill locations (and sources, if any)

None

Describe methods in which spills were mitigated, if any

None

Radiological Contaminants

Describe any potential, likely, or known radiological production or storage locations

Building 112 has had no known radiological materials, except Dosimetry Lab's use some sealed radioactive sources (cesium and carbon 14) in some of it counting equipment in the east half of Room 101 Also some sealed potentially low-level radioactively contaminated planchets are stored in the locked Radiological Records Room, Room 108A

Describe any potential, likely, or known spill locations (e g , known leaking sealed radioactive sources, leaking waste drums potentially contaminated drains, etc)

There have been no known leaking sealed radioactive sources in Building 112

Describe methods in which spills were mitigated, if any

None

Describe any potential, likely, or known isotopes of concern (e g , weapons grade plutonium, uranium isotopes, pure beta emitters, mixed fission products, etc)

None

Describe any potential, likely, or known external facility contamination (e g , stack release points, unfiltered ventilation, facility's physical location to known site releases, etc)

None

Environmental Restoration Concerns

Describe any ER concerns that could affect facility characterization (e g , IHSSs, PACs, UBCs)

None

Additional Information

Describe any additional information that may be useful during facility characterization (e g , contaminant migration routes, waste handling operations, physical hazards Historical Release Reports, WSRIC data, etc)

Building 112 is not listed in the RFETS Historical Release Reports A WSRIC exists for Building 112 and it describes the closed cafeteria, the Dosimetry Labs and it's small RCRA waste generation stream, and it also has a Telephone Operations Section that was deleted on August 27, 1999 Interviewees were concerned about the old cafeteria's grease-trap under the concrete floor that might contain asbestos and/or residual cooking grease

References

Provide all sources of information utilized to gather data for facility history (e g , documents, files, interviews) Attach all applicable supporting documentation

Sources reviewed to complete this HSA were the RFETS Facility list, the Historical Release Report, the Listing of Beryllium Areas Historical and Present, Site Master List of RCRA Units, and the Site IHSS, PAC, and UBC databases Building 112 does not have a Facility Safety Analysis Report (FSAR) but it is included in Site SAR as an Industrial Facility Building 112 has a WSRIC but it contains very little information The D&D RISS Facility Characterization Interview Checklists for Building 112 are also reference documents for this HSA Report

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Waste Volume Estimates and Material Types For Building 112 A Type 1 Facility						
Concrete (cu ft)	Wood (cu ft)	Metal (cu ft)	Corrugated Sheet Metal (cu ft)	Wall Board (cu ft)	ACM	Other Waste (cu ft)
54,000	2,900	12,300	1,500	1,200	TBD 5,200* cu ft insulation	Transite 1,00 cu ft* 200 cu ft glass 30 cu ft plastic 600 cu ft carpeting 200 cu ft ceramic tile 100 cu ft floor tile* 1,600 cu ft roof insul * 500 cu ft wall insul * 500 cu ft pipe insul * (* Included in ACM TBD Column to the left)

Further Actions

Recommend any further actions, if any (e g , characterization, decontamination, special handling, etc)

Begin the RLC/PDS process

Note

This HAS was performed prior to SME walkdowns, and chemical and radiological characterization package preparations SMEs should evaluate and/or verify all information during the RLC/PDS process SMEs may need to review additional documentation and perform additional interviews Information contained in this HSA Report only represents a "snapshot" in time Subsequent data may be obtained during SME walkdowns and chemical and radiological characterization package preparations, which may conflict with this report However, this HSA Report will not be amended The RLC data will take precedence over the information in this HSA Report RLC data will appear in the RLCR/PDSR

Prepared By Bob Sheets (Name) Bob Sheets (Signature) 2/11/2002 (Date)

D&D RISS Facility Characterization
Historical Site Assessment Report
May, 2002 Rev. 0

Facility ID Group- 3 Area 1 - Buildings 223, 223A, 549, 551 Pad, 552, 553, 554, 556, 679, 680, 681, and the 750 HAZ Pad

Anticipated Facility Type (1, 2, or 3) Buildings 223, 223A, 549, 551 Pad, 552, 553, 554, 556, 679, 680, 681, and the 750 HAZ Pad are anticipated Type 1 facilities

This facility-specific Historical Site Assessment (HSA) has been performed in accordance with *D&D Characterization Protocol*, RFETS MAN-077-DDCP, latest version, and *Facility Disposition Program Manual*, RFETS MAN-076-FDPM, latest version

Physical Description

Building 223

Building 223 is a 3500 sq ft Nitrogen Plant constructed in 1991 This facility is a steel frame building built on a concrete foundation The walls and the roof are corrugated metal sheets mounted to a steel frame The facility has two large purification tanks (Tanks 233 and 234) on the north side of the building used to remove moisture from the ambient airs prior to the separation process The facility also has a cooling tower on the west side of the building

Building 233 has the following utilities, water, sanitary, electric, gas, steam heat, and an overhead sprinkler system and wall-mounted fire extinguishers provide fire protection

Building 223A

Building 223A is currently the Environmental Restoration Storage Building constructed in 1975 The building is a 1980 sq ft metal frame building constructed on a concrete pad poured on grade The walls and ceiling are corrugated sheet metal mounted on a steel frame

Building 223A has the following utilities, electric, and fire protection is provided by wall-mounted fire extinguishers

Building 549

Building 549 is currently a 1920 sq ft Fitness Center and was constructed in 1957 This building is a metal frame building constructed on a concrete slab The walls and ceiling are insulated metal sheets attached to a steel frame The walls have a sprayed-on insulation The building has restrooms inside

Building 549 has the following utilities, water, sanitary, electric, and fire protection is provided by wall-mounted fire extinguishers

551 Pad

The 551 Pad is an approximately 20, 000 sq ft fenced outdoor Permitted RCRA storage area (RCRA Unit 18 03) located east of Building 551 The 551 Pad is an asphalt pad that houses several cargo containers used to store RCRA/Low-level Mixed Waste The storage yard is also used to store miscellaneous equipment, which are inter ally contaminated

The 551 Pad has no utilities

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Building 552

Building 552 is a 4170 sq ft single-story compressed gas storage building constructed in 1953 The building is a non-insulated metal frame structure with possible asbestos siding and roof The building is constructed on an elevated concrete slab, which is approximately 3-4 ft thick

Building 552 has the following utilities, electric and fire protection is provided by wall mounted fire extinguishers

Building 553

Building 553 is a 1280 sq ft single-story welding shop constructed in 1953 The building is a non-insulated metal frame structure with asbestos siding and roof The building is constructed on an elevated concrete slab, which is approximately 3-4 ft thick

Building 553 has the following utilities, electric, water and fire protection is provided by wall mounted fire extinguishers

Building 554

Building 554 is a 1190 sq ft single-story warehouse storage and receiving building constructed in 1953 The building is a non-insulated a metal frame structure with asbestos siding and roof Building 554 had the floor raised about 4 feet in the east half of the original structure in 1956

Building 554 has the following utilities, electric, plant steam, and fire protection is provided by wall mounted fire extinguishers

Building 556

Building 556 is a 640 sq ft single-story site maintenance building constructed in 1963 This building is a steel frame building with metal walls and a metal roof Building 556 is built on a concrete slab The building has two large roll-up garage doors on the east side of the building and an out-of-service air compressor located on the north side of the building

Building 556 has the following utilities, electric, steam heat, pressurized air system Fire protection is provided by wall-mounted fire extinguishers

Building 679, and 680

Buildings 679 and 680 are both high voltage electrical transformers mounted on a 500 sq ft concrete pad The transformers where installed in 1996 and are located approximately 15 ft west of Building 681 (The Switchgrear Building)

Building 679 and 680 have the following utilities electric

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Building 681

Building 681 is a 2302 sq ft switchgear building, constructed in 1996 Building 681 is a metal frame building constructed on a concrete pad The walls and ceiling are non-insulated corrugated metal panels mount to the steel frame

The following utilities electric and fire protection is provided by wall mounted fire extinguishers

750 HAZ Pad (a k a RCRA Unit 1)

The 750 Pad is an approximately 17,000-sq ft fenced outdoor RCRA storage area (RCRA Unit 1) The 750 HAZ Pad located on an asphalt pad and contains several heated cargo containers to store RCRA/Low-level Mixed Waste

The 750 HAZ Pad has the following utilities, electric, and fire protection is provided by wall-mounted fire extinguishers

Historical Operations

Building 223

Building 223 houses the equipment for separating nitrogen from ambient air Filtered air is compressed and purified in a heat exchanger It is then passed through a distillation chamber where nitrogen is separated from the oxygen based on the differences in their liquefaction temperatures The nitrogen is then piped throughout the plant Excess nitrogen is liquefied and stored for future use See the "Environmental Concerns" section below for IHSSs and PACs associated with this building

Building 223A

Building 223A was originally built and owned by Air Products Corporation in 1975 to supply nitrogen to Buildings 776, 777, 707 and 371 In 1991 Air Products built a larger facility to the west of Building 223A and removed all of their equipment and tanks from this building This building was not operated by RFETS personnel but by Air Products From 1991 to 1995 the building sat empty at which time it became storage facility for CERCLA contaminated soils See the "Environmental Concerns" section below for any IHSSs and PACs associated with this building

Building 549

Building 549 was originally an electrical support building operated by J E Jones From 1994 to 2001 the building was used as a Radcon support facility to house Southside Radcon support personnel The building was used to count smears, store air samples, and support Southside Radcon operations The building had a RMA in the northwest portion of the building, which was used to store radiological sources None of these sources where known to have leaked In 2001 the facility was closed and left vacant for about 6 months In 2001 the building was converted to a fitness center The building has no history of building contamination See the "Environmental Concerns" section below for IHSSs and PACs associated with this building

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551 Pad

The 551 pad is a fenced in RCRA storage area (RCRA unit 18 03) The 551 Pad storage yard houses several storage containers used to store RCRA/Low-Level Mixed Waste The 551 Pad also is used to store internally contaminated equipment prior to final disposal Originally the area was used to storage scrap metal which on occasion was found to contain low levels of contamination A detailed history of the area currently called the 551 Pad is documented in PAC 500-117 2 "Middle Site Chemical Site Storage" There have been no known release to the environment since RCRA Unit 18 03 was established See the "Environmental Concerns" section below for IHSSs and PACs associated with the 551 Pad

Building 552

Building 552 is a storage building for cylinders of pressurized gas Cylinders are received, stored and transferred from Building 552 to various onsite users Empty cylinders are received from the various on-site users and stored pending pick-up by vendors On occasion, contaminated cylinders are received from on-site users and must be decontaminated or packaged as LLW See the "Environmental Concerns" section below for IHSSs and PACs associated with this building

Building 553

Building 553 was originally the site chemical receiving and storage building This activity ended in the late 1970's when the building became the metal fabrication building and was later used as a glovebox training building in the early 1990's Chemicals stored here included, but were not limited to acids, bases, solvents and sulfates See the "Environmental Concerns" section below for IHSSs and PACs associated with this building

Building 554

Building 554 was the original Radiological Shipping and Receiving Building until Building 440 was constructed in early 1970s This building had a criticality alarm system and health physics air-sampling system installed in the building In the 1980s and 1990s the building was used as a general warehouse In 1990 a drum crusher was installed The drum crusher was removed in 2000 The facility has been a RCRA 90-Day pad used primarily for the storage of used light bulb for the last 8 years During this time the building also housed several Material Stewardship support personnel in the office/break room on the north side of the building Building 554 had the floor raised about 4 feet in the east half of the original structure in 1956 See the "Environmental Concerns" section below for IHSSs and PACs associated with this building

Building 556

Building 556 was originally constructed as a welding shop and continued to operate as a welding shop until the late 1980s when the welding equipment was removed Then the building was used as a general maintenance building From approximately 1996 to 2000 the building was used as a Radcon support building The Radcon support group did store sealed sources in a RMA in the building None of the sources where known to have leaked and there was no building contamination associated with this activity In 2002 the building began being used for welding training of D&D workers See the "Environmental Concerns" section below for IHSSs and PACs associated with this building

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Building 679, and 680

Building 679 and 680 are electrical transformers installed in 1996 These are non-PCB transforms and have no history of leaking The transformers are located on a 500 sq ft concrete pad, which also acts as a secondary containment pad These transformers where installed to re-place transformers 555 and 558 Building 679 and 680 were constructed on the site of the old transformers 555 and 558 See the "Environmental Concerns" section below for IHSSs and PACs associated with this building

Building 681

Building 681 is a high voltage electrical switchgear building constructed in 1996 The equipment in this building has never contained PCBs or lead The northeast corner of the building contains lead-acid batteries used for system back up The batteries have no history of leaking See the "Environmental Concerns" section below for IHSSs and PACs associated with this building

750 HAZ Pad (a k.a RCRA Unit 1)

The 750 HAZ Pad is a fenced in RCRA storage area (RCRA Unit 1) The 750 HAZ Pad storage yard houses several heated storage containers used to store RCRA/Low-Level Mixed Waste Originally the area was used to storage scrap metal which on occasion was found to contain low levels of contamination A detailed history of the area currently called the 750 HAZ Pad is documented in PAS 500-903 and IHSS 500-197 "Scrap Metal Site 551" Although there have been release inside the storage containers in RCRA Unit 1, there have been no known release to the environment since RCRA Unit 1 was established See the "Environmental Concerns" section below for IHSSs and PACs associated with this building

See the "Environmental Concerns" section below for IHSSs and PACs associated with this building

Current Operational Status

Building 223 is still operational Building 223A is currently used to store CERCLA investigative derived waste Building 549 is currently being used as a fitness center The 551 Pad is currently being used as a permitted RCRA Storage Unit Building 552 is currently being used as a gas cylinder storage and receiving building Building 553 is currently empty Building 554 is currently being used as a RCRA 90-Day storage area for collecting used light bulbs Building 556 is currently being used for welding training Building 679 is currently an operational transformer Building 680 is currently an operational transformer Building 681 is currently an operational switchgear building The 750 HAZ Pad is currently an operational permitted RCRA Storage Unit

Contaminants of Concern

Asbestos

Describe any potential, likely, or known sources of Asbestos

Buildings 223A, 549, 552, 553, and 554 are posted as potentially containing asbestos None of the facilities in this HSA have had a comprehensive asbestos survey

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Beryllium (Be)

Describe any potential, likely, or known Be production or storage locations

None of the building addressed in this HSA are on the List of known Be Areas

Summarize any recent Be sampling results

No resent Be samples collected on any of these facilities

Lead

Describe any potential, likely, or known sources of Lead (e g , paint, shielding, etc)

Lead in paint and lead in electrical equipment may be a concern for some of the facilities in this HSA due to the age of construction Lead shielding was temporarily used in Building 549 and 556 when these building were used to support southside Radcon operations The lead shielding was removed when the Radcon operations ended

See the section below for RCRA/CERCLA constituents for lead in waste steam references related to these buildings

RCRA/CERCLA Constituents

Describe any potential, likely, or known sources of RCRA/CERCLA constituents (e g , chemical storage, waste storage, and processes)

Building 553 was originally constructed as the site Chemical Receiving and Storage Facility and operated as the chemical receiving building until the late 1970s Building 554 was the original Radiological Shipping and Receiving Facility until Building 440 was built in the early 1970s

The 551 Pad and the 750 HAZ Pad are permitted RCRA units and will be closed in accordance with the Site RCRA Closure Plan

See the "Historical Operations" section above for a detailed description of the operation which occurred in each facility addressed in this HSA See the Building specific WSRIC for more detailed listing of the waste streams associated with each building addressed in this HSA

Describe any potential, likely, or known spill locations (and sources, if any)

Additional RCRA/CERCLA release information is documented in the IHSS, PAC, and UBC section below

Describe methods in which spills were mitigated, if any

Spills where cleaned up to the standards of the day

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PCBs

Describe any potential, likely, or known sources of PCBs (e g , light ballasts, paints, equipment, etc)

Due to the age of some of these facilities, there may be a concern with PCBs in paint, light ballasts, and electrical equipment PCBs where not known to have been regularly handled in any of these facilities

Describe any potential, likely, or known spill locations (and sources, if any)

No known PCB spills occurred in any of the facilities addressed in this HSA However, Building 549 is located approximately 20 feet south of PAC 500-904 "Transformer leak 223-1/223-2" In addition, Building 679 and 680 were constructed on the old 555 and 558 transformer site which are currently PAC 500-901 and 500-903

Describe methods in which spills were mitigated, if any

No known PCB spills occurred in any of the facilities addressed in this HSA

Radiological Contaminants

Describe any potential, likely, or known radiological production or storage locations

None of the buildings in this HSA are radiologically posted Building 554 was the original Radiological Shipping and Receiving Building Interviews indicate, that on occasion, contamination from the exterior of the drums where detected on the floor of Building 554 Today there is no indication of contamination remaining in Building 554

Building 552, on occasion, received contaminated cylinders from the process buildings Interviews indicate that in the past there was occasionally contamination found on the floor of Building 552 (in storage bays 3 and 4) from the exterior of the contaminated cylinders Today there is no indication of contamination remaining in the building

See the "Historical Operations" section above for a detailed description of the operation which occurred in each facility addressed in this HSA See the Building specific WSRIC for more detailed listing of the waste streams associated with each building addressed in this HSA

Describe any potential, likely, or known spill locations (e g , known leaking sealed radioactive sources, leaking waste drums, potentially contaminated drains, etc)

Additional RCRA/CERCLA release information is documented in the IHSS, PAC, and UBC section below The 551 Pad and the 750 HAZ Pad are located on IHSSs See section below for information on IHSSs PACs, and UBCs

Describe methods in which spills were mitigated, If any

Spills were cleaned up to the standards of the day

Describe any potential, likely, or known isotopes of concern (e g , weapons grade plutonium, uranium isotopes, pure beta emitters mixed fission products, etc)

The primary Isotope of concern includes, but is not limited to uranium and plutonium Other than sealed sources, there were no known mixed fission products or pure beta emitters used in any of the facilities addressed in this HSA

Describe any potential, likely, or known external facility contamination (e g , stack release points, unfiltered ventilation, facility's physical location to known site releases, etc)

See section below for information on IHSSs PACs, and UBCs

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Environmental Restoration Concerns

Describe any ER concerns that could affect facility characterization (e g , IHSSs, PACs, UBCs)

Building 223 is associated with or located near the following active IHSSs, PACs, and UBCs,

1) PAC 300-156 1 "Building 371 Parking lot", NFA approved in 2001

Building 223A is associated with or located near the following active IHSSs, PACs, and UBCs,

1) PAC 500-117 1 "North Chemical Site Storage", Active

Building 549 is associated with or located near the following active IHSSs, PACs, and UBCs,

1) PAC 300-186 "Valve Vault 12", Active
2) PAC 500-117 1 "North Chemical Site Storage", Active
3) PAC 500-904 "Transformer Leak –223-1/223-2", Active

The 551 Pad is associated with or located near the following active IHSSs, PACs, and UBCs,

1) PAC 500-117 2 "Middle Site Chemical Site Storage", Active
2) PAC 500-169 "Waste Drum Peroxide Burial", Proposed NFA in 1998 HRR Annual Update

Building 552 is associated with or located near the following active IHSSs, PACs, and UBCs,

1) PAC 300-186 "Valve Vault 12", Active

Building 553 associated with or located near the following active IHSSs, PACs, and UBCs,

1) IHSS 300-158 "Radioactive site - Building 551", Active

Building 554 associated with or located near the following active IHSSs, PACs, and UBCs,

1) IHSS 300-158 "Radioactive site - Building 551", Active

Building 556 associated with or located near the following active IHSSs, PACs, and UBCs,

1) IHSS 300-158 "Radioactive site - Building 551", Active

Building 679, 680 and 681associated with or located near the following active IHSSs, PACs, and UBCs,

1) IHSS 500-901 "Transformer Leak - 555", Proposed NFA 1996 Annual Update

The 750 HAZ Pad is associated with or located near the following active IHSSs, PACs, and UBCs,

1) IHSS 500-197 "Scrap Metal Site", Active
2) PAC 500- 903 "RCRA Storage Unit 1, NFA approved 1992

Additional Information

Describe any additional information that may be useful during facility characterization (e g , contaminant migration routes, waste handling operations, physical hazards, Historical Release Reports WSRIC data, etc)

None

References

Provide all sources of information utilized to gather data for facility history (e g , documents files, interviews)

Sources reviewed to complete this HSA were the RFETS Facility List, the Historical Release Report, Site Master List of RCRA Units, and the Site IHSS, PAC, and UBC databases Building 223, 549 and 552 WSRICs, (Building 223A, 552, 553, 554, 556, 679, 680, and 681 do not have WSRICs) In addition, a facility walkdown and interviews were performed

Waste Volume Estimates and Material Types

Facility	Concrete (cu ft)	Wood (cu ft)	Metal (cu ft)	Corrugated Sheet Metal (cu ft)	Wall Board (cu ft)	ACM (cu ft)	Other Waste (cu ft)
Building 223	3825	0	1600	3100	400	TBD	N/A
Building 223A	1500	0	600	1400	0	TBD	N/A
Building 549	1400	0	650	1300	200	TBD	N/A
551 Pad	0e	0	0	0	0	TBD	Asphalt –8,000
Building 552	8000	0	1500	0	100	TBD	Siding material 2500
Building 553	2400	0	500	0	0	TBD	Siding material 1000
Building 554	2300	0	450	0	100	TBD	Siding material 900
Building 556	550	0	300	600	300	TBD	N/A
Building 679	700	0	0	0	0	TBD	N/A
Building 680	700	0	0	0	0	TBD	N/A
Building 681	1600	0	800	1500	0	TBD	N/A
750 HAZ Pad	0	0	0	0	0	TBD	Asphalt – 6,800

Further Actions

Recommend any further actions, if any (e g , characterization, decontamination, special handling, etc)

Begin the RLC/PDS process

Note

This HSA was performed prior to SME walkdowns, and chemical and radiological characterization package preparations SMEs should evaluate and/or verify all information during the RLC/PDS process SMEs may need to review additional documentation and perform additional interviews Information contained in this HSA only represents a "snapshot" in time Subsequent data may be obtained during SME walkdowns and chemical and radiological characterization package preparations, which may conflict with this report However, this report will not be amended, and the newer data will take precedence over the data in this report Newer Data will appear in the RLCR/PDSR

Prepared By Doug Bryant (Name) Doug Bryant (Signature) May 2002 (Date)

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D&D RISS Facility Characterization
Historical Site Assessment Report
July, 2002 Rev. 0

Facility ID (AREA 3 - GROUP 6) Trailers 371A, 371B, 371C, 371D, 371E, 371F and Building 367
Anticipated Facility Type (1, 2, or 3) Trailers 371A, 371B, 371C, 371D, 371E, 371F and Building 367 are anticipated Type 1 facilities

This facility-specific Historical Site Assessment (HSA) has been performed in accordance with
D&D Characterization Protocol, RFETS MAN-077-DDCP, latest version, and
Facility Disposition Program Manual, RFETS MAN-076-FDPM, latest version

Physical Description

Trailers T371A

Trailer T371A is a 2,240 square foot general office trailer acquired in 1969 The Trailer has corrugated metal siding, corrugated metal skirting and a metal roof The entries have wooden stairs with a wooden enclosure leading to the entry doors The Trailer's configuration consists mostly of hard walled offices and some cubicles The ceiling is a drop ceiling made of acoustical tiles with recessed lighting and the floors are carpeted

Trailer T371A has the following utilities electric, and fire protection is provided by wall mounted fire extinguishers

Trailers T371C

Trailer T371C is an 11,400 square foot general office trailer This trailer has corrugated metal siding, corrugated metal skirting and a metal roof The entries have wooden stairs with a wooden enclosure leading to the entry doors The Trailer's configuration consists of hard walled offices and cubicles The ceiling is a drop ceiling made of acoustical tiles with recessed lighting and the floors are carpeted

Trailer T371C has the following utilities electrical, plant water, plant sanitary, and fire protection is provided by an overhead sprinkler system and wall mounted fire extinguishers

Trailers T371D

Trailer T371D is an 11,400 square foot general office trailer This trailer has corrugated metal siding, corrugated metal skirting and a metal roof The entries have wooden stairs with a wooden enclosure leading to the entry doors The Trailer's configuration consists mostly of cubicles with one hard walled office on the east side of the trailer The ceiling is a drop ceiling made of acoustical tiles with recessed lighting and the floors are carpeted

Trailer T371D has the following utilities electrical, and fire protection is provided by an overhead sprinkler system and wall mounted fire extinguishers

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Trailers T371E

Trailer T371E is a 240 square foot restroom This trailer has corrugated metal siding, corrugated metal skirting and a metal roof The entries have wooden stairs with a wooden enclosure leading to the entry doors The Trailer's configuration consists of a men's and a women's restroom equipped such as sinks, toilets, and urinals The floors are tile

Trailer T371E has the following utilities electrical, plant water, plant sanitary, and fire protection is provided wall mounted fire extinguishers

Trailers T371F

Trailer T371F is a 1960 square foot general office trailer This trailer has corrugated metal siding, corrugated metal skirting and a metal roof The entries have wooden stairs with a wooden enclosure leading to the entry doors The Trailer's configuration consists of hard walled offices and cubicles The ceiling is a drop ceiling made of acoustical tiles with recessed lighting and the floors are carpeted

Trailer T371F has the following utilities electrical, and fire protection is provided by an overhead sprinkler system and wall mounted fire extinguishers

Building 367

Building 367 (a k a Building 667) is a 240 square foot building constructed in 1967 and was originally located northwest of Building 850 In approximately 1981 the building was moved to its current location north of the T371C trailer and place on a new concrete slab This building is an uninstalled metal building, constructed on a concrete slab At one time the building was wired for electric The electric has been disconnected Currently there are no utility connections

Historical Operations

Trailer T371A

T371A has historically been used as a general office trailer The trailer was originally located north of Building 771and was relocated to its current location in the early 1980s to support the 371 project Trailer T371A never housed any hazardous or radiological operations

Trailer T371C

T371C has historically been used as a general office trailer This trailer was originally installed at its current location to support the 371 project Trailer T371C never housed any hazardous or radiological operations

Trailers T371D

T371B has historically been used as a general office trailer This trailer was originally installed at its current location to support the 371 project Trailer T371D never housed any hazardous or radiological operations

Trailers T371E

T371B has historically been used as a restroom This trailer was originally installed at its current location to support the 371 project trailers located in the general area Trailer T371E never housed any hazardous or radiological operations

Trailers T371F

T371F has historically been used as a general office trailer This trailer was originally installed at its current location to support the 371 project Trailer T371F never housed any hazardous or radiological operations

Building 367

Building 367 (a k a Building 667) originally located northwest of Building 850 and was moved to make room for the parking lot north of Building 850 Prior to being moved, the building was used as a pesticide, herbicide and general ground-keeping storage building In about 1981 the building was moved to its current location (placed on a new concrete slab) and was again used to store herbicides, pesticides, fertilizers and general grounds-keeping supplies These chemicals had a history of leaking and are documented in PAC 300-702 "Pesticide Shed" PAC 600-1005 documents the PAC associated with the building's original location northwest of Building 850

Interviews indicate that the floor of the building was washed and the wash water sampled in approximately 1989 No documentation of this activity could be found Since 1989, the building has been used for non-hazardous maintenance store (i e signs, light etc) for the site Roads and Grounds Maintenance Group The building has been empty since 2001

Current Operational Status

All the trailers addressed in this HSA are active Building 367 is empty and the utilities disconnected

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Contaminants of Concern
Asbestos *Describe any potential, likely, or known sources of Asbestos* None of the facilities in this HSA have asbestos postings The Industrial Hygiene Group (IHG) has collected some asbestos data of the T371 trailers Contact IHG for a copy of this information
Beryllium (Be) *Describe any potential, likely, or known Be production or storage locations* None of the buildings addressed in this HSA are on the List of known Be Areas *Summarize any recent Be sampling results* There have been no recent Be samples collected on any of these facilities
Lead *Describe any potential, likely, or known sources of Lead (e g , paint, shielding, etc)* Given the age of some of the facilities addressed in this HSA, lead in paint may be a concern No processes containing lead were conducted in these trailers or in Building 367
RCRA/CERCLA Constituents *Describe any potential, likely, or known sources of RCRA/CERCLA constituents (e g , chemical storage, waste storage, and processes)* None of the trailers addressed in this HSA have not handles or stored any RCRA/CERLA constituents other than general cleaning supplies Building 367 was used to store herbicides, pesticides and fertilizers These containers had a history of leaking These leaks are documented in PAC 300-702 "Pesticide Shed" Prior to being relocated to its current location (and placed on a new concrete slab), Building 367 was called Building 667 See the "Historical Operations" section above for more details *Describe any potential, likely, or known spill locations (and sources, if any)* Leaks related to Building 367 are documented in PAC 300-702 "Pesticide Shed" *Describe methods in which spills were mitigated, if any* Leaks related to Building 367 are documented in PAC 300-702 "Pesticide Shed"

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PCBs

Describe any potential, likely, or known sources of PCBs (e g , light ballasts, paints, equipment, etc)

PCBs where not known to have been handled in any of the facilities addressed in this HSA Due to the age of construction of some of these facilities, PCBs in paint may be an issue

Describe any potential, likely, or known spill locations (and sources, if any)

No PCB spills occurred in any of the facilities addressed in this HSA

Describe methods in which spills were mitigated, if any

No PCB spills occurred in any of the facilities addressed in this HSA

Radiological Contaminants

Describe any potential, likely, or known radiological production or storage locations

None of the Buildings in this HSA have radiological postings Building 367 was used to store herbicides, pesticides and fertilizers These containers had a history of leaking These leaks are documented in PAC 300-702 "Pesticide Shed" Prior to being relocated to its current location (and placed on a new concrete slab), Building 367 was called Building 667 See the "Historical Operations" section above for more details

Describe any potential, likely, or known spill locations (e g , known leaking sealed radioactive sources, leaking waste drums, potentially contaminated drains, etc)

No radiological material has been stored or handled in any of the facilities addressed in this HSA

Describe methods in which spills were mitigated, f any

No radiological material has been stored or handled in any of the facilities addressed in this HSA

Describe any potential, likely, or known isotopes of concern (e g , weapons grade plutonium, uranium isotopes, pure beta emitters, mixed fission products, etc)

No radiological material has been stored or handled in any of the facilities addressed in this HSA

Describe any potential, likely, or known external facility contamination (e g , stack release points, unfiltered ventilation, facility's physical location to known site releases, etc)

See section below for information on IHSSs PACs, and UBCs

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Environmental Restoration Concerns

Describe any ER concerns that could affect facility characterization (e g , IHSSs, PACs, UBCs)

None of the trailers addressed in this HSA are associated with any IHSSs, PACs, and UBCs

Building 367 is associated with the following PAC

1) PAC 300-702 "Pesticide Shed", Active
2) PAC 600-1005 "Former Pesticide Storage Area", Active

Additional Information

Describe any additional information that may be useful during facility characterization (e g , contaminant migration routes, waste handling operations, physical hazards, Historical Release Reports, WSRIC data, etc)

None

References

Provide all sources of information utilized to gather data for facility history (e g , documents, files, interviews)

Sources reviewed to complete this HSA were the RFETS Facility List, the Historical Release Report, Site Master List of RCRA Units, and the Site IHSS, PAC, and UBC databases None of the buildings in this HSA have WSRICs In addition, a facility walkdown and interviews were performed

Waste Volume Estimates and Material Types

Facility	Concrete (cu ft)	Wood (cu ft)	Metal (cu ft)	Corrugated Sheet Metal (cu ft)	Wall Board (cu ft)	ACM (cu ft)	Other Waste (cu ft)
Trailer T371A	None	700	7000	1000	1000	TBD	N/A
Trailer T371C	None	2000	19000	3000	3000	TBD	N/A
Trailer T371D	None	650	6500	800	800	TBD	N/A
Trailer T371E	None	200	220	250	200	TBD	N/A
Trailers T371F	None	650	6500	800	800	TBD	N/A
Building 367	200	0	100	100	0	TBD	N/A

Further Actions

Recommend any further actions, if any (e g , characterization, decontamination, special handling, etc)

Begin the RLC/PDS process

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Note
This HSA was performed prior to SME walkdowns, and chemical and radiological characterization package preparations SMEs should evaluate and/or verify all information during the RLC/PDS process SMEs may need to review additional documentation and perform additional interviews Information contained in this HSA only represents a "snapshot" in time Subsequent data may be obtained during SME walkdowns and chemical and radiological characterization package preparations, which may conflict with this report However, this report will not be amended, and the newer data will take precedence over the data in this report Newer Data will appear in the RLCR/PDSR.

Prepared By Doug Bryant / Doug Bryant / July 2002
Name Signature Date

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D&D RISS Facility Characterization
Historical Site Assessment Report
July, 2002 Rev. 0

Facility ID: (Group- 4 Area 2) - Buildings 556, 566A, 569, 570, T760A, 790, and 906
Anticipated Facility Type (1, 2, or 3) Buildings 556, 566A, 569, 570, T760A, 790, and 906 are anticipated Type 2 facilities

This facility-specific Historical Site Assessment (HSA) has been performed in accordance with *D&D Characterization Protocol*, RFETS MAN-077-DDCP, latest version, and *Facility Disposition Program Manual*, RFETS MAN-076-FDPM, latest version

Physical Description

Building 566 and 566A

Building 566 and 566A are a single structure divided in to a 13,700 sq ft. Site Alarm Maintenance and Respirator Repair Facility designated Building 566 and the 4000 sq ft filter plenum designated Building 566A that services Building 566 Both facilities were constructed in the 1991 The walls are reinforces concrete, the roof is constructed with a metal sheet, lightweight concrete, insulation and a synthetic membrane to seal the roof The floor is pored concrete

Building 566 and 566A have the following utilities electric, plant water, plant sanitary, process waste line (lock and tagged-out) and an overhead sprinkler system and wall-mounted fire extinguishers provide fire protection

Building 569

Building 569, also known as the Crate Counting Facility, is a 7620 sq ft single-story building constructed in 1987 Building 569 is a prefabricated modular building constructed on a concrete slab The walls are constructed of metal siding mounted on a steel frame The roof is an insulated metal roof mounted to a steel frame

Building 566B has the following utilities, electric, plant water, plant sanitary, plant stream and fire protection is provided by wall-mounted fire extinguishers

Building 570

Building 570 is the filter plenum for the Crate Counting Facility and is a 683 sq ft building constructed in 1987 Building 570 is a concrete building with 12-in thick reinforced concrete walls and a concrete floor The roof is constructed with insulated sheet metal supported by steel joists

Building 570 has the following utilities, electric, plant water, plant stream, and a plenum deluge system and wall-mounted fire extinguishers provide fire protection

Trailer T760A

Trailer T760A is a 500 square foot shower trailer This trailer was placed into service in 1990 and is located south of the 750 Pad T760A has aluminum siding and aluminum skirting Each entry has wooden steps leading to the entry doors The interior is configured with a separate men and woman's shower, toilet and locker room facility The interior walls are wallboard and the floors are vinyl tiles There is a propane gas tank located west of the trailer

Trailer T760A has the following utilities electric, propane gas, plant water, plant sanitary, and fire protection is provided by wall mounted fire extinguishers The water and gas systems have been shut off

Building 790

Building 790 is a 6,768-sq ft single-story concrete building constructed in 1991 The building consists of three irradiation cells (A, B, and C) an instrument calibration support area, a control room, and an office area The irradiation cells and control room are constructed of 2-feet-thick concrete walls The instrument calibration support and office areas are constructed of masonry blocks and steel reinforcement The floors are poured in place concrete The roof is constructed with insulated sheet metal supported by steel joists

Building 790 has the following utilities, electric, plant water, plant sanitary, natural gas, and fire protection is provided by an overhead sprinkler system and wall mounted fire extinguishers

Building 906

Building 906 is a 25,000 square foot TRU waste storage facility Building 906 was constructed in 1994 as a LLW storage facility In 2000 it had its ventilation system, fire protection system, alarm system and lightning protection systems up-grades to comply with the TRU waste storage requirements Building 906 is a steel frame building constructed on a concrete pad The walls and roof are insulated aluminum mounted on the steel frame

Building 906 has the following utilities, electric, fire protection is provided by an overhead sprinkler system and wall mounted fire extinguishers

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Historical Operations

Building 566 and 566A

Building 556 was originally constructed to be the site laundry facility and Building 566A was the filter plenum for Building 566 The laundry was only operational for about 2 years and was never approved to handle the highly contaminated laundry Building 566 has always housed the Respirator Cleaning and Repair Facility In 1999 the Alarms Maintenance Servicing Center moved into the building

Alarm maintenance involves cleaning equipment, replaces faulty components, and testing and inspecting equipment The Respirator Cleaning and Repairs Facility contains a respirator washer, laundry carts, radioactivity monitoring equipment detergent, bleach and water are used in the respirator washing process Wastewater drains into two storage tanks located in the Building 566 pit and is then pumped to the sanitary drain Building 566 has a process waste line which had been locked-out. Respirators and Alarm equipment are surveyed for radioactivity prior to being transported to Building 566

Building 556A is the filter plenum for the laundry in Building 556 In the late 1990s, the air plenum in Building 566A was surveyed and no radiological contamination was found The radiological posting were removed from the plenum In the late 1990s, the washers and dryers were removed and the waste trench under the washers was surveyed Only very low levels of contamination were found and the trench was decontaminated (using power washer)

Building 569

Building 569 contains radioactivity assay equipment and temporary waste storage operations Building 569 is also RCRA Unit 59 Containers of low-level, low-level mixed, transuranic and transuranic mixed waste are received from throughout the plant and assayed using a passive-active counter Containers are assayed prior being accepted into Building 569 Containers whose contents meet the package criteria are transported to Buildings 664, 440, or 906 for storage pending off-site shipment. Those containers not meeting the package criteria, or which exhibit physical damage or improper packing are identified for repackaging No unpacking or repackaging is performed in Building 569

Building 570

Building 570 was built as the Building 569 air plenum, but has never been activated and has never housed any radiological or hazardous operation

Trailer T760A

T760A was used as a shower trailer for workers at the 904 Pad and the pondcrete operation on the 750 Pad The trailer had no radiological or hazardous operations Routine radiological surveys show no evidence of contamination

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Building 790

Building 790 was designed to perform radiometric calibrations Specifically, it is used to expose thermoluminesent dosimeters (TLD) and calibrate site health physics instrumentation The building consists of three irradiation cells (A, B, and C) an instrument calibration support area, a control room, and an office area This facility uses and stores sealed sources and X-ray generating equipment.

Cell A is a hexagonal shaped two-story, low neutron-scatter-design silo that houses the Pneumatic Source Transfer System (PSTS) for neutron flux calibration of TLDs and radiation survey equipment Cell B contains an X-ray generating system for the calibration of portable radiation measurement instruments and to irradiate TLDs Cell C contains high-level gamma irradiators, which are used for gamma irradiation of TLDs and instruments No hazardous chemicals are stored in Building 790, other than general cleaning supplies and small quantities (less than 1 pint) of alcohol and acetone to clean some instrument parts

Sources stored in Building 760 include, but are not limited to Pu, Am, Sr-90, Cf, Cs, Co-60, Ba, and Pm

Building 906

Building 906, also referred to as Central Waste Storage, is RCRA Unit 14 and was constructed in 1994 as a LLW storage facility In 2000 it had its ventilation system, fire protection system, alarm system and lightning protection systems up-graded to comply with the TRU waste storage requirements Building 906 is currently permitted to store LLW, TRU, Mixed Waste, and TSCA waste, but primarily stores TRU waste Building 906 has had no spills and there is no evidence of any building contamination Some areas of the Building 906 have elevated dose rates caused by the TRU waste stored in the building

Current Operational Status

Building 556 is operational as the site's Alarm Maintenance Center and the Respirators Cleaning and Repair Facility Building 566A (air plenum for Building 566) in not operational Building 569 is the Crate Counting Facility and is operational Building 570 (the air plenum for Building 569) is not operational Trailer T760A is a shower trailer and is not operational Building 790 is currently operational as the site's Radiation Calibration Laboratory Building 906 is currently operational as a TRU waste storage area

Contaminants of Concern

Asbestos

Describe any potential, likely, or known sources of Asbestos

None of the buildings in this HSA have an asbestos posting Building 569 is posted as being asbestos free The posting references Document # JAF-010-90 The other facilities in this HSA have not had a comprehensive asbestos survey

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Beryllium (Be)

Describe any potential, likely, or known Be production or storage locations

None of the buildings addressed in this HSA are on the List of known Be Areas Respirators, which have been released from Beryllium areas are cleaned and repaired in Building 566 There is no history of beryllium building contamination associated with this activity

Summarize any recent Be sampling results

Contact the IH group for any resent Be sample results

Lead

Describe any potential, likely, or known sources of Lead (e g , paint, shielding, etc)

Given the age of the facilities addressed in this HSA, lead in paint should not be a concern Building 790 and 569 have some lead shielding in the assay equipment

RCRA/CERCLA Constituents

Describe any potential, likely, or known sources of RCRA/CERCLA constituents (e g , chemical storage, waste storage, and processes)

Some of the facilities addressed in this HSA have potentially internally contaminated equipment, but there is not a history of significant building contamination associated with the Building operations See "Historical Operations" section above for a detailed description of the operations that occurred in each facility addressed in this HSA

See the "Environmental Concerns" section below for IHSSs and PACs associated with this building See the Building specific WSRIC for more detailed listing of the waste streams associated with each building addressed in this HSA

Describe any potential, likely, or known spill locations (and sources, if any)

None

Describe methods in which spills were mitigated, if any

None

PCBs

Describe any potential, likely, or known sources of PCBs (e g , light ballasts, paints, equipment, etc)

Due to the age of the facilities addressed in this HSA, there should not be a concern with PCBs in paint PCBs where not known to have been handled in any of these facilities

Describe any potential, likely, or known spill locations (and sources, if any)

No PCB spills occurred in any of the facilities addressed in this HSA

Describe methods in which spills were mitigated, if any

No PCB spills occurred in any of the facilities addressed in this HSA

Radiological Contaminants

Describe any potential, likely, or known radiological production or storage locations

Some of the facilities addressed in this HSA have potentially internally contaminated equipment, but there is not a history of significant building contamination associated with the Building operations See "Historical Operations" section above for a detailed description of the operations that occurred in each facility addressed in this HSA

See the "Environmental Concerns" section below for IHSSs and PACs associated with this building See the Building specific WSRIC for more detailed listing of the waste streams associated with each building addressed in this HSA

Describe any potential, likely, or known spill locations (e g , known leaking sealed radioactive sources, leaking waste drums, potentially contaminated drains, etc)

None

Describe methods in which spills were mitigated, If any

None

Describe any potential, likely, or known isotopes of concern (e g , weapons grade plutonium, uranium isotopes, pure beta emitters, mixed fission products, etc)

The primary Isotope of concern includes, but is not limited to uranium and plutonium Other than sealed sources, there were no known mixed fission products or pure beta emitters used in any of the facilities addressed in this HSA

Describe any potential, likely, or known external facility contamination (e g , stack release points, unfiltered ventilation, facility's physical location to known site releases, etc)

See section below for information on IHSSs PACs, and UBCs

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Environmental Restoration Concerns

Describe any ER concerns that could affect facility characterization (e g , IHSSs, PACs, UBCs)

Building 566 and 556A are associated with or located near the following IHSSs, PACs, and UBCs,

1) PAC 700-150 2 "Radioactive site west of Building 771 and 776 ", Active
2) PAC 700-1102 "776-4", This IHSS was proposed NFA in 1997 and again in 2001 This NFA has not been approved and is currently under negotiation

Building 567 and 570 are associated with or located near the following IHSSs, PACs, and UBCs,

1) PAC 700-150 5 "Radioactive site west of Building 707 ", Proposed NFA in 1998

Buildings 790, 906, and Trailer T760A are not associated with or located near any IHSSs, PACs, and UBCs,

Additional Information

Describe any additional information that may be useful during facility characterization (e g , contaminant migration routes, waste handling operations, physical hazards, Historical Release Reports, WSRIC data, etc)

None

References

Provide all sources of information utilized to gather data for facility history (e g , documents, files, interviews)

Sources reviewed to complete this HSA were the RFETS Facility List, the Historical Release Report, Site Master List of RCRA Units, and the Site IHSS, PAC, and UBC databases The Building WSRIC for those Buildings with a WSRIC In addition, a facility walkdowns and interviews were performed

Waste Volume Estimates and Material Types

Facility	Concrete (cu ft)	Wood (cu ft)	Metal (cu ft)	Corrugated Sheet Metal (cu ft)	Wall Board (cu ft)	ACM (cu ft)	Other Waste (cu ft)
Building 566	8500	0	19800	3600	2100	TBD	N/A
Building 566A	2800	0	1150	900	0	TBD	N/A
Building 569	4000	0	1100	2000	1000	TBD	N/A
Building 570	3900	0	700	200	0	TBD	N/A
Trailer T760A	None	200	300	350	450	TBD	N/A
Building 790	24,000	0	1900	800	1200	TBD	N/A
Building 906	13,000	0	3000	3500	0	TBD	N/A

Further Actions

Recommend any further actions, if any (e g , characterization, decontamination, special handling, etc)

Begin the RLC/PDS process

Note
This HSA was performed prior to SME walkdowns, and chemical and radiological characterization package preparations SMEs should evaluate and/or verify all information during the RLC/PDS process SMEs may need to review additional documentation and perform additional interviews Information contained in this HSA only represents a "snapshot" in time Subsequent data may be obtained during SME walkdowns and chemical and radiological characterization package preparations, which may conflict with this report However, this report will not be amended, and the newer data will take precedence over the data in this report Newer Data will appear in the RLCR/PDSR.

Prepared By. Doug Bryant / Doug Bryant / July 2002
Name Signature Date

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ATTACHMENT C

Radiological Data Summaries and Survey Maps

ATTACHMENT C-1

Survey Unit B112-A-001

Radiological Data Summaries and Survey Maps

SURVEY UNIT B112-A-001
RADIOLOGICAL DATA SUMMARY - PDS

Survey Unit Description: B112 (Interior)

49

Total Surface Activity Measurements

	69 Number Required	69 Number Obtained	
MIN	-10 0		dpm/100 cm^2
MAX	91 4		dpm/100 cm^2
MEAN	9 8		dpm/100 cm^2
STD DEV	21 4		dpm/100 cm^2
TRANSURANIC DCGL$_W$	100		dpm/100 cm^2

Removable Activity Measurements

	69 Number Required	69 Number Obtained	
MIN	-0 9		dpm/100 cm^2
MAX	2 7		dpm/100 cm^2
MEAN	-0 1		dpm/100 cm^2
STD DEV	0 9		dpm/100 cm^2
TRANSURANIC DCGL$_W$	20		dpm/100 cm^2

SURVEY UNIT B112-A-001
TSA - DATA SUMMARY

Manufacturer	NE Electra	NE Electra	NE Electra	NE Electra	NE Electra
Model	DP-6	DP-6	DP 6	DP-6	DP-6
Instrument ID#	1	2	3	4	9
Serial #	396	394	2344	2343	2343
Cal Due Date	1/12/03	1/12/03	1/17/03	10/2/02	10/2/02
Analysis Date	8/15/02	8/15/02	8/15/02	8/15/02	8/15/02
Alpha Eff (c/d)	223	226	222	223	223
Alpha Bkgd (cpm)	3	1 3	1 0	0.0	0 0
Sample Time (min)	1 5	1 5	1 5	1 5	1 5
LAB Time (min)	1 5	1 5	1 5	1 5	1 5
MDC (dpm/100cm^2)	48 0	48 0	48 0	48 0	48 0

Sample Location Number	Instrument ID#	Sample Gross Counts (cpm)	Sample Gross Activity (dpm/100cm2)	LAB Gross Counts (cpm)	LAB Gross Activity (dpm/100cm2)	Sample Net Activity (dpm/100cm2)[1]
1	1	16	71 7	2 7	12 1	58 7
2	3	2	9 0	6.1	27 5	4 1
3	4	2	9 0	3 3	14 8	-4 1
4	1	23 3	104 5	6.7	30 0	91 4
5	2	14	61 9	3.3	14 6	48 9
6	1	8 7	39 0	0.7	3 1	25 9
7	2	4 7	20 8	2.7	11 9	7 7
8	4	2	9 0	2	9 0	-4 1
9	4	10	44 8	4	17 9	31 8
10	2	7 3	32 3	5 3	23 5	19 2
11	2	6	26 5	4	17 7	13 5
12	3	4 7	21 2	6	27 0	8 1
13	1	6	26 9	3 3	14 8	13 8
14	2	15 3	67 7	4	17 7	54 6
15	2	17.3	76.5	4 7	20 8	63 5
16	1	2 7	12 1	4	17 9	1 0
17	2	10	44 2	1 3	5 8	31 2
18	2	2 7	11 9	0 7	3 1	1 1
19	2	3 3	14 6	3 3	14 6	1 5
20	2	5 3	23 5	4	17 7	10 4
21	2	1 3	5 8	0 7	3 1	7 3
22	2	2	8 8	0.7	3 1	-4 2
23	2	12	53 1	4	17 7	40 0
24	1	8 7	39 0	4	17 9	25 9
25	1	15 3	68 6	3 3	14 8	55.5
26	2	2	8 8	2 7	11 9	-4 2
27	1	4 7	21 1	1 3	5 8	8 0
28	2	1 3	5 8	3.3	14 6	7 3
29	1	9 3	41 7	2	9 0	28 6
30	4	7 3	32 7	1.3	5 8	19 7
31	1	1 3	5 8	4 7	21 1	7 3
32	3	17 3	77 9	8 7	39 2	64 8
33	1	1 3	5 8	0	0 0	7 3
34	1	5 3	23 8	4	17 9	10 7
35	1	4 7	21 1	1.3	5 8	8 0
36	2	5 3	23 5	3 3	14 6	10 4
37	2	4	17 7	4 7	20 8	4 6
38	2	4	17 7	1.3	5 8	4 6
39	1	3 3	14 8	0.7	3 1	1 7
40	2	2 7	11 9	2.7	11 9	1 1
41	1	4 7	21 1	2	9 0	8 0
42	1	1 3	5 8	0	0 0	7 3
43	2	0 7	3 1	0 7	3 1	10 0
44	4	2 7	12 1	1 3	5 8	1 0
45	2	2	8 8	3 3	14 6	-4 2
46	1	2 7	12 1	4 7	21 1	1 0
47	1	2	9 0	4 7	21 1	-4 1
48	4	0 7	3 1	1.3	5 8	9 9

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SURVEY UNIT B112-A-001
RSC - DATA SUMMARY

38	2	4	17 7	1 3	5 8	4 6
39	1	3 3	14 8	0 7	3 1	1 7
40	2	2 7	11 9	2 7	11 9	-1 1
41	1	4 7	21 1	2	9 0	8 0
42	1	1 3	5 8	0	0 0	-7 3
43	2	0 7	3 1	0 7	3 1	-10 0
44	4	2 7	12 1	1 3	5 8	1 0
45	2	2	8 8	3 3	14 6	-4 2
46	1	2 7	12 1	4 7	21 1	-1 0
47	1	2	9 0	4 7	21 1	-4 1
48	4	0 7	3 1	1 3	5 8	-9 9
49	1	4	17 9	1 3	5 8	4 9
50	1	2 7	12 1	1 3	5 8	-1 0
51	1	3 3	14 8	4	17 9	1 7
52	1	3 3	14 8	1 3	5 8	1 7
53	2	6	26 5	2 7	11 9	13 5
8c*	4	4 0	17 9	4 0	17 9	4 9
13c*	1	2 0	9 0	2 7	12 1	-4 1
16c*	1	0 7	3 1	4 0	17 9	9 9
17c*	2	5 3	23 5	3 3	14 6	10 4
18c*	2	3 3	14 6	4 0	17 7	1 5
19c*	2	1 3	5 8	2 7	11 9	-7 3
27c*	1	2 0	9 0	2 0	9 0	-4 1
28c*	2	1 3	5 8	1 3	5 8	7 3
33c*	1	4 0	17 9	1 3	5 8	4 9
39c*	1	0 7	3 1	0 7	3 1	-9 9
40c*	2	1 3	5 8	0 7	3 1	-7 3
41c*	1	2 0	9 0	2 7	12 1	-4 1
42c*	1	4 7	21 1	2 7	12 1	8 0
43c*	2	4 3	19 0	3 3	14 6	5 9
44c*	4	1 3	5 8	2 7	12 1	-7 3
45c*	1	2 7	12 1	1 3	5 8	-1 0

13 1	Sample LAB Average
MIN	-10 0
MAX	91 4
MEAN	9 8
SD	21 4
Transuranic $DCGL_W$	**100**

1 Average LAB used to subtract from Gross Sample Activity

* These TSA measurements were taken from the floor under the carpet at the locations listed

QC Measurements

17	1	2 7	12 1	2 0	9 0	6 1
50	1	2 7	12 1	2 7	12 1	6 1
11	4	2 0	9 0	0 7	3 1	2 9
17c	9	2 7	12 1	0 0	0 0	6 1

6 1	QC LAB Average
MIN	2 9
MAX	6 1
MEAN	5 3
Transuranic $DCGL_W$	**100**

1 Average QC LAB used to subtract from Gross Sample Activity

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SURVEY UNIT B112-A-001
RSC - DATA SUMMARY

Manufacturer	Eberline	Eberline	Eberline	Eberline
Model	SAC-4	SAC-4	SAC-4	SAC-4
Instrument ID#	5	6	7	8
Serial #	824	851	963	966
Cal Due Date	10/1/02	10/29/02	1/3/03	11/6/02
Analysis Date	8/15/02	8/15/02	8/15/02	8/15/02
Alpha Eff (c/d)	0 33	0 33	0 33	0 33
Alpha Bkgd (cpm)	0 3	0 2	0 1	0 1
Sample Time (min)	2	2	2	2
Bkgd Time (min)	10	10	10	10
MDC (dpm/100cm^2)	8 8	8 0	7 0	7 0

Sample Location Number	Instrument ID#	Gross Counts	Net Activity (dpm/100 cm^2)
1	5	0 0	-0 9
2	6	2 0	2 4
3	7	0 0	-0 3
4	8	1 0	1 2
5	5	0 0	-0 9
6	6	0 0	-0 6
7	7	0 0	-0 3
8	8	0 0	-0 3
9	5	1 0	0 6
10	6	1 0	0 9
11	7	1 0	1 2
12	8	0 0	-0 3
13	5	0 0	-0 9
14	6	0 0	-0 6
15	7	1 0	1 2
16	8	0 0	-0 3
17	5	0 0	-0 9
18	6	0 0	-0 6
19	7	0 0	-0 3
20	8	0 0	-0 3
21	5	0 0	-0 9
22	6	1 0	0 9
23	7	0 0	-0 3
24	8	0 0	-0 3
25	5	0 0	-0 9
26	6	0 0	-0 6
27	7	2 0	2 7
28	8	0 0	-0 3
29	5	0 0	-0 9
30	6	0 0	-0 6
31	7	0 0	-0 3
32	8	0 0	-0 3
33	5	0 0	-0 9
34	6	0 0	-0 6
35	7	0 0	-0 3

SURVEY UNIT B112-A-001
RSC - DATA SUMMARY

36	8	0 0	-0 3
37	5	2 0	2 1
38	6	0 0	-0 6
39	7	0 0	-0 3
40	8	0 0	-0 3
41	5	0 0	-0 9
42	6	1 0	0 9
43	7	0 0	-0 3
44	8	0 0	-0 3
45	5	0 0	-0 9
46	6	1 0	0 9
47	7	0 0	-0 3
48	8	1 0	1 2
49	5	0 0	-0 9
50	6	0 0	-0 6
51	7	0 0	-0 3
52	8	0 0	-0 3
53	5	0 0	-0 9
8c*	6	2 0	2 4
13c*	7	0 0	-0 3
16c*	8	0 0	-0 3
17c*	5	0 0	-0 9
18c*	6	0 0	-0 6
19c*	7	0 0	-0 3
27c*	8	0 0	-0 3
28c*	5	0 0	-0 9
33c*	6	0 0	-0 6
39c*	7	1 0	1 2
40c*	8	0 0	-0 3
41c*	5	0 0	-0 9
42c*	6	0 0	-0 6
43c*	7	0 0	-0 3
44c*	8	1 0	1 2
45c*	5	1 0	0 6

MIN	-0 9
MAX	2 7
MEAN	-0 1
SD	0 9
Transuranic $DCGL_W$	**20**

* - These RSA measurements were taken from the floor under the carpet at the locations listed

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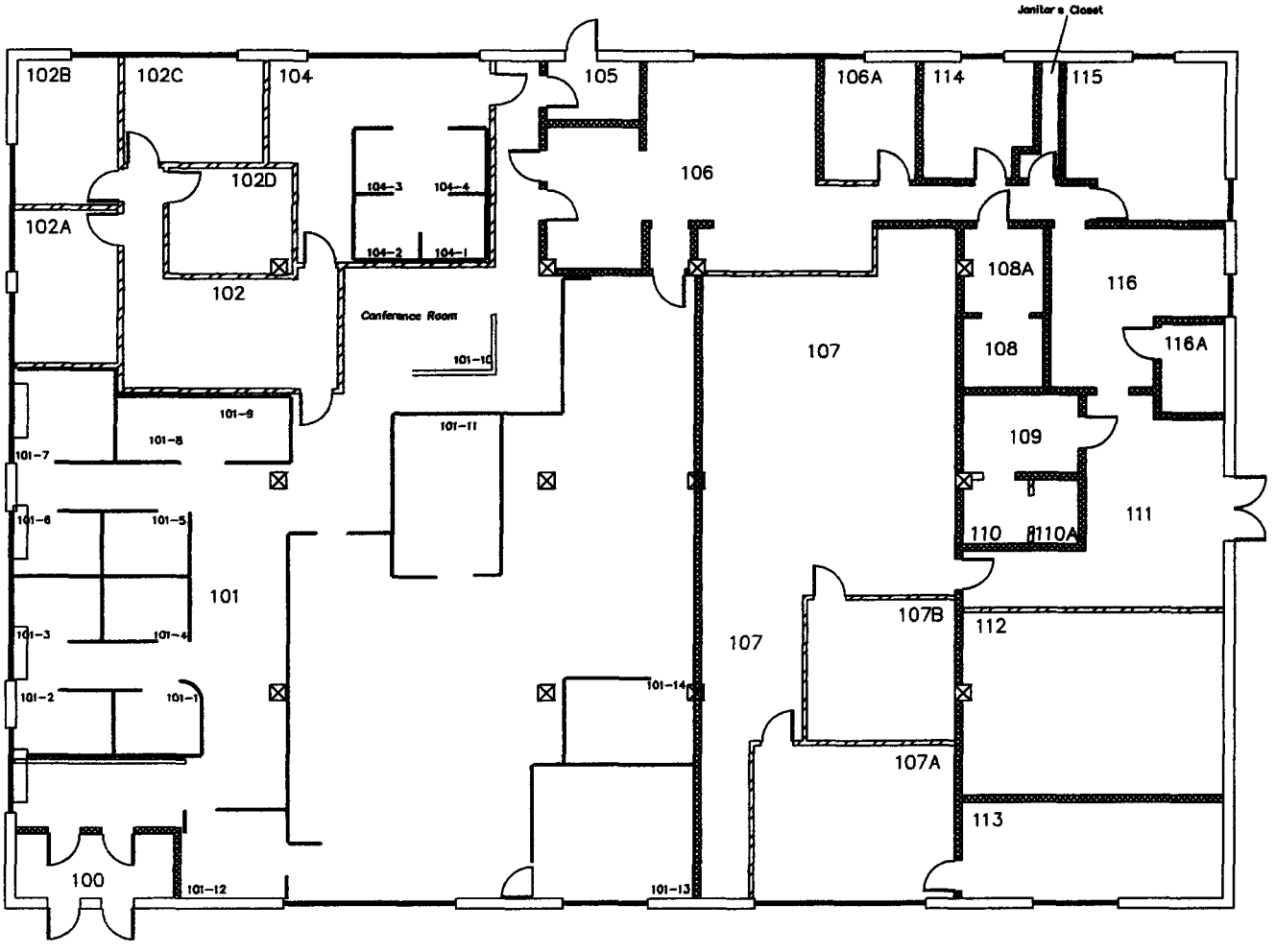
PRE-DEMOLITION SURVEY FOR BUILDING 112

Survey Area A **Survey Unit B112-A-001** **Classification 3**
Building 112
Survey Unit Description Floor Plan
Total Area 3535 sq m **Total Floor Area 825 sq m**

Building 112
FLOOR PLAN

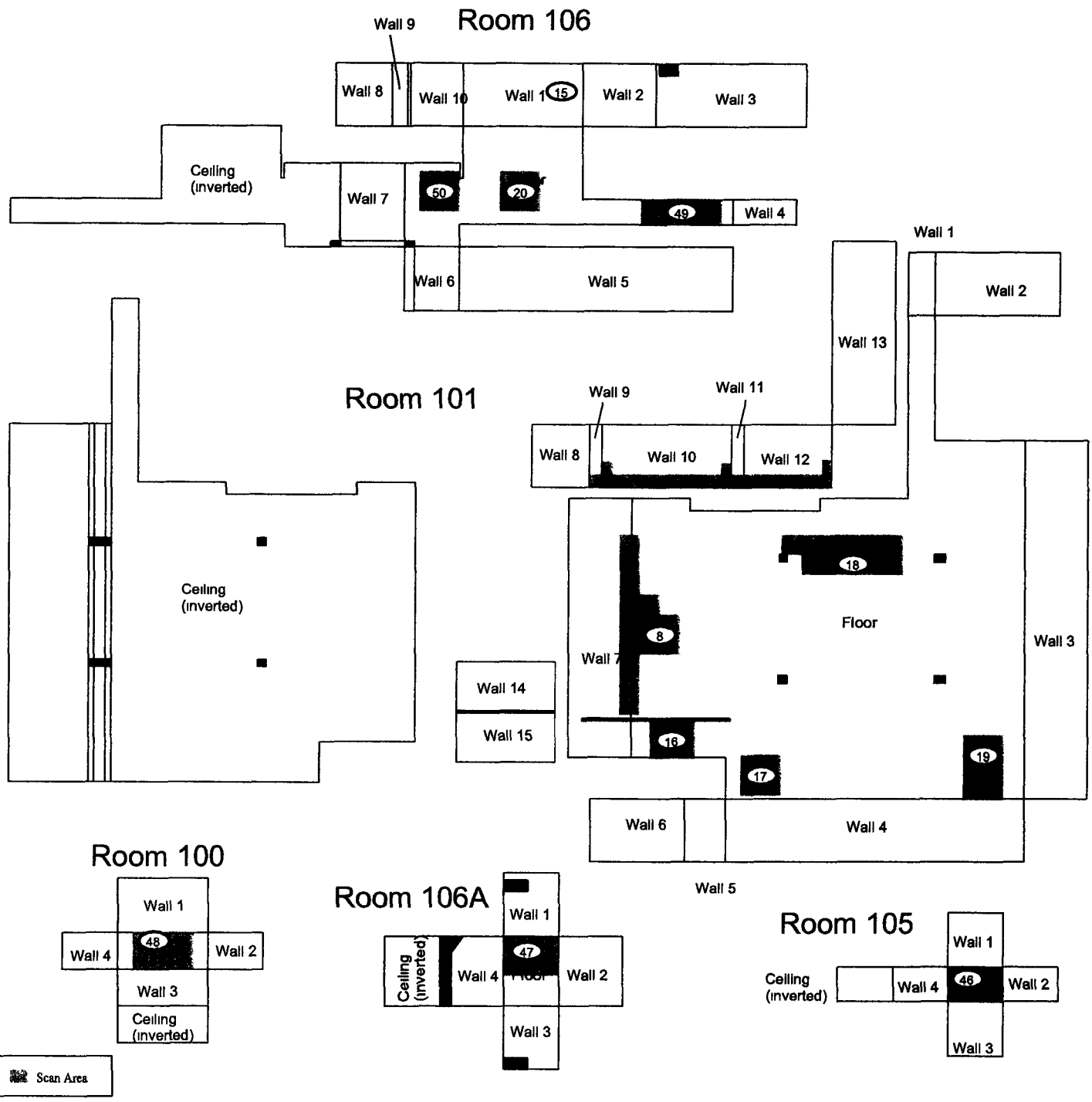


SURVEY MAP LEGEND				
Smear & TSA Location Smear TSA & Sample Location Open/Inaccessible Area Area in Another Survey Unit	Neither the United States Government nor Kaiser Hill Co., nor DynCorp I&ET nor any agency thereof nor any of their employees, makes any warranty express or implied, or assumes any legal liability or responsibility for the accuracy completeness, or usefulness of any information, apparatus product, or process disclosed, or represents that its use would not infringe privately owned rights	N	0 FEET 0 0 METERS 0 DRAWING NOT TO SCALE	U S Department of Energy Rocky Flats Environmental Technology Site Prepared by GIS Dept 303-966 7707 Prepared for DynCorp THE ART OF TECHNOLOGY MAP ID 02-0312/B112-FP January 28, 2002

Scan Survey Information
Survey Instrument ID #(s) _____
RCT ID #(s) _____

PRE-DEMOLITION SURVEY FOR BUILDING 112

Survey Area A **Survey Unit B112-A-001** **Classification 3**
Building 112
Survey Unit Description Interior of Building
Total Area 3535 sq m **Total Floor Area 825 sq m**



SURVEY MAP LEGEND

- Smear & TSA Location
- Smear TSA & Sample Location
- Open/Inaccessible Area
- Area in Another Survey Unit

Scan Survey Information
Survey Instrument ID #(s) 1, 2, 3, 4
RCT ID #(s) 1, 2, 3, 4

N

0 FEET 30
0 METERS 10

1 inch = 24 feet 1 grid sq = 1 sq m.

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Prepared by GIS Dept 303-966 7707 Prepared for

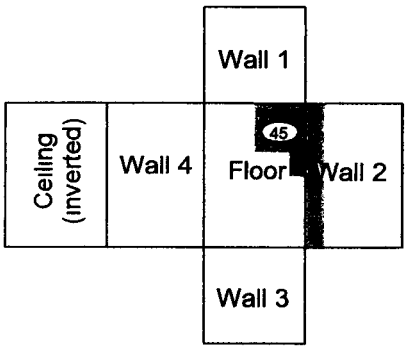
DynCorp
THE ART OF TECHNOLOGY

MAP ID 02-0312/112-IN-1SC September 5, 2002

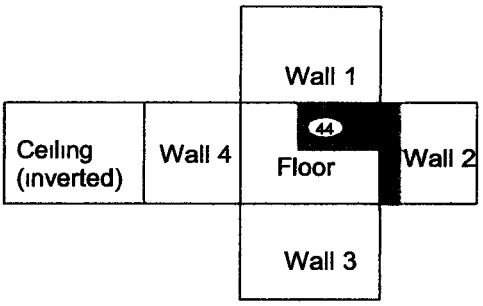
PRE-DEMOLITION SURVEY FOR BUILDING 112

Survey Area A **Survey Unit B112-A-001** **Classification 3**
Building 112
Survey Unit Description Interior of Building
Total Area 3535 sq m **Total Floor Area 825 sq m**

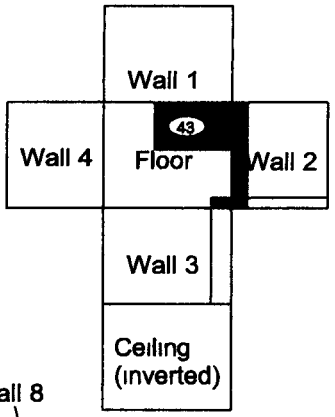
Room 102B



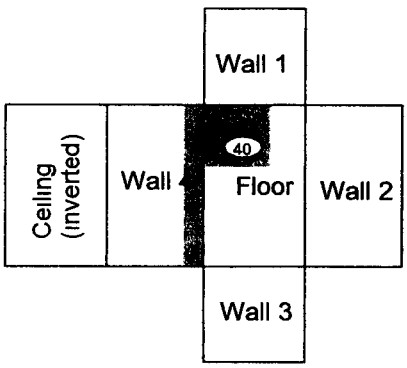
Room 102C



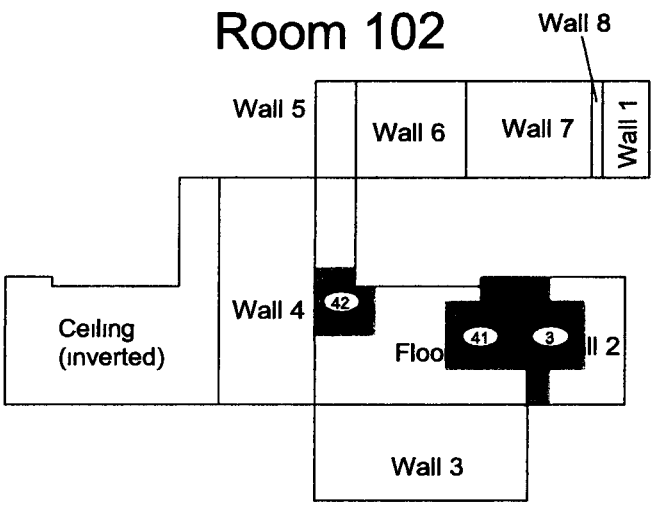
Room 102D



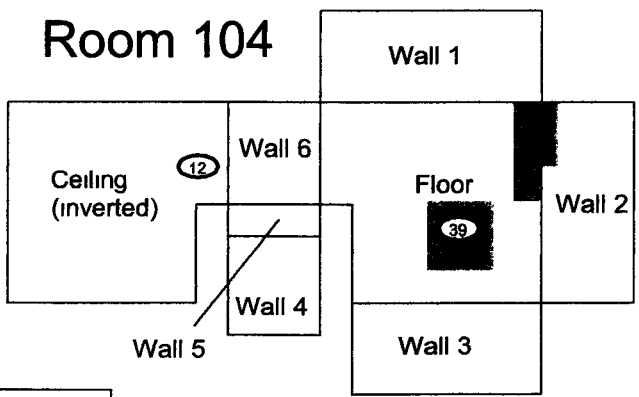
Room 102A



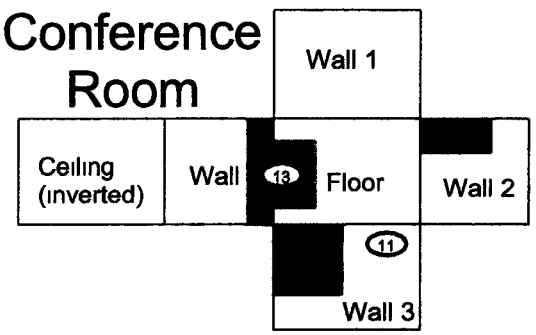
Room 102



Room 104



Conference Room



Scan Area

SURVEY MAP LEGEND

- Smear & TSA Location
- Smear TSA & Sample Location
- Open/Inaccessible Area
- Area in Another Survey Unit

N

0 FEET 25
0 METERS 8

1 inch = 18 feet 1 grid sq = 1 sq m

Scan Survey Information
Survey Instrument ID #(s) 1, 2, 3, 4
RCT ID #(s) 1, 2, 3, 4

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Prepared by GIS Dept 303-966 7707 Prepared for:
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THE ART OF TECHNOLOGY
MAP ID 02-0312/112-IN-2SC September 5, 2002

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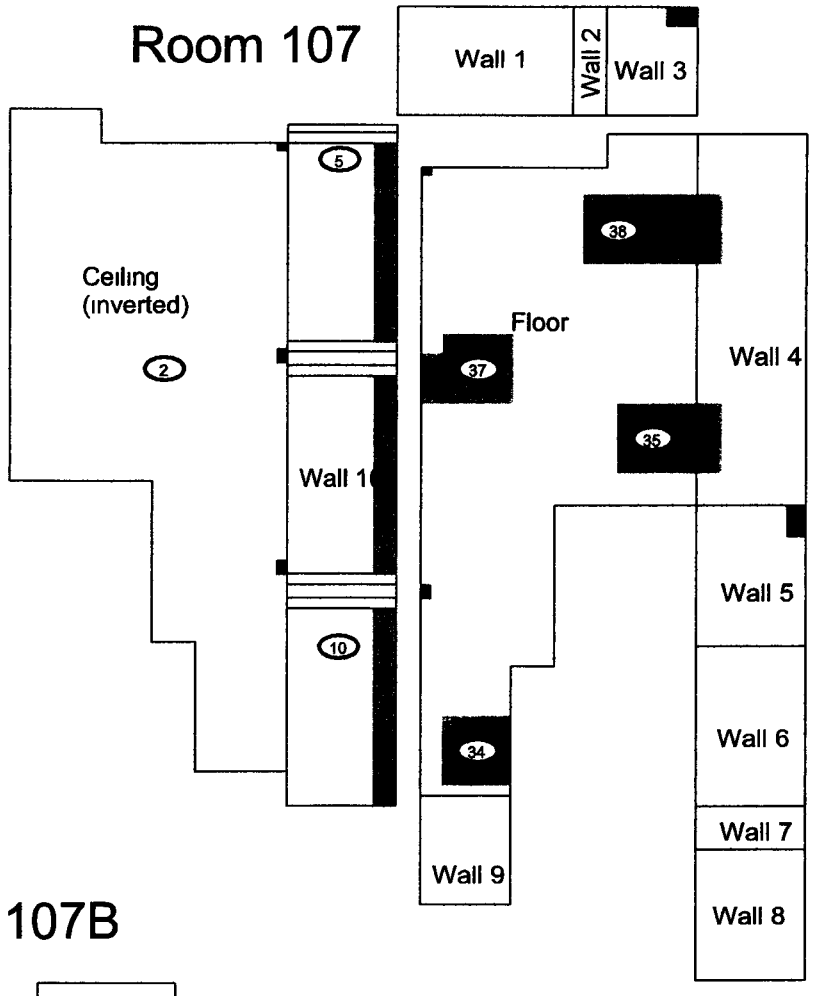
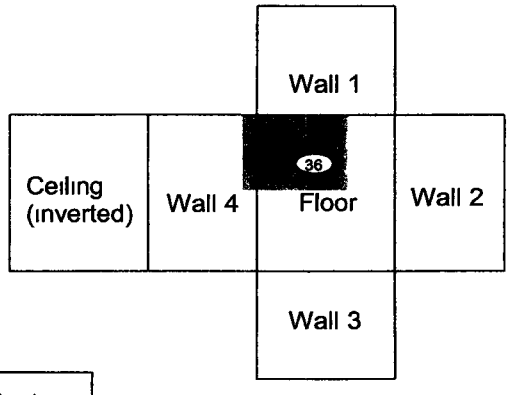
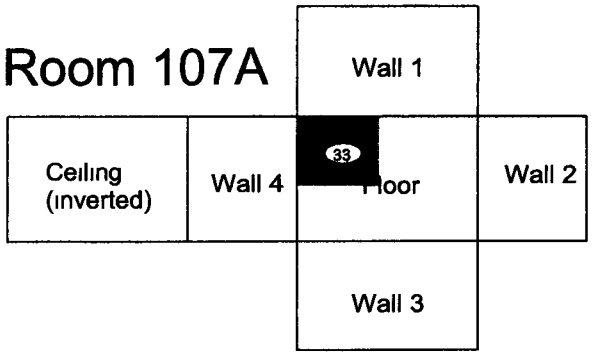
PRE-DEMOLITION SURVEY FOR BUILDING 112

Survey Area A **Survey Unit B112-A-001** **Classification 3**
Building 112
Survey Unit Description Interior of Building
Total Area 3535 sq m **Total Floor Area 825 sq m**







Scan Area

SURVEY MAP LEGEND

- Smear & TSA Location
- Smear TSA & Sample Location
- Open/Inaccessible Area
- Area in Another Survey Unit

N

0 FEET 25
0 METERS 8

1 inch = 18 feet 1 grid sq = 1 sq m

Scan Survey Information
Survey Instrument ID #(s) 1, 2, 3, 4
RCT ID #(s) 1, 2, 3, 4

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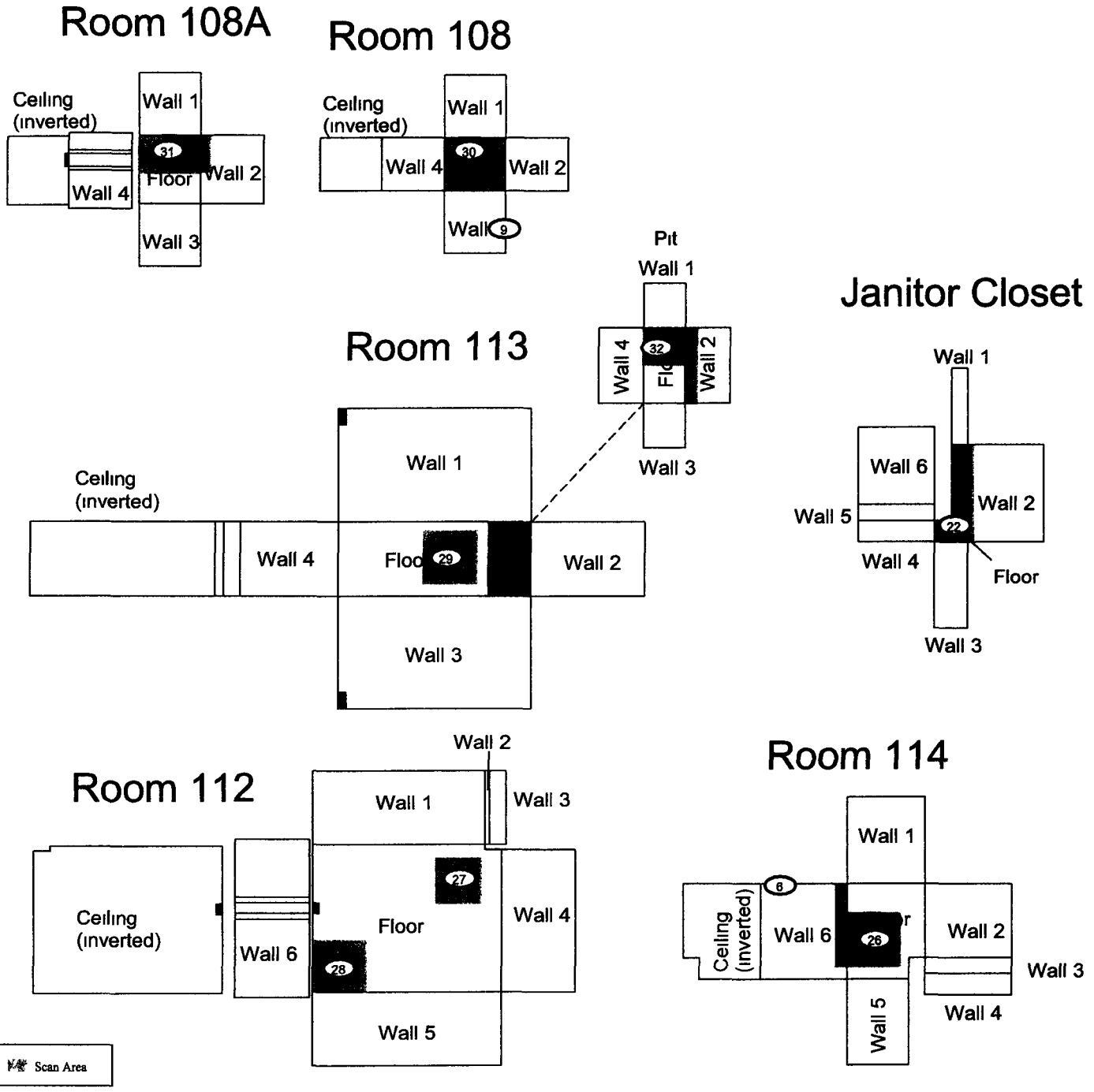
MAP ID 02-0312/112-IN-3SC September 5, 2002

PRE-DEMOLITION SURVEY FOR BUILDING 112

Survey Area A **Survey Unit B112-A-001** **Classification 3**
Building 112
Survey Unit Description Interior of Building
Total Area 3535 sq m **Total Floor Area 825 sq m**



SURVEY MAP LEGEND

- Smear & TSA Location
- Smear TSA & Sample Location
- Open/Inaccessible Area
- Area in Another Survey Unit

N

0 FEET 25
0 METERS 8

1 inch = 18 feet 1 grid sq = 1 sq m

Scan Survey Information
Survey Instrument ID #(s) 1, 2, 3, 4
RCT ID #(s) 1, 2, 3, 4

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Rocky Flats Environmental Technology Site

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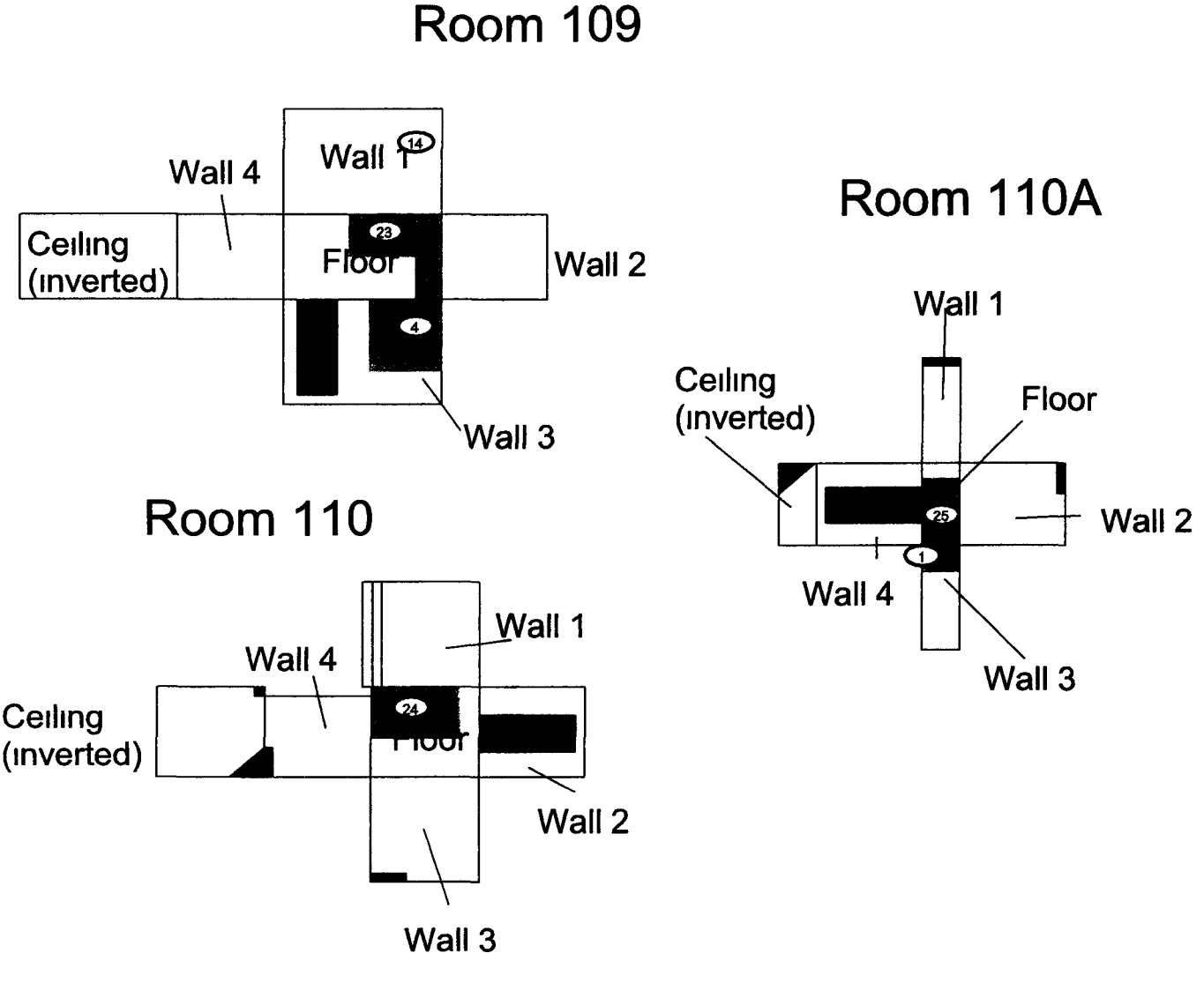
MAP ID 02-0312/112-IN-4SC September 5, 2002

PRE-DEMOLITION SURVEY FOR BUILDING 112

Survey Area A **Survey Unit** B112-A-001 **Classification** 3
Building 112
Survey Unit Description Interior of Building
Total Area 3535 sq m **Total Floor Area** 825 sq m



SURVEY MAP LEGEND

- Smear & TSA Location
- Smear TSA & Sample Location
- Open/Inaccessible Area
- Area in Another Survey Unit

N

0 FEET 15
0 METERS 5

1 inch = 12 feet 1 grid sq = 1 sq m

Scan Survey Information
Survey Instrument ID #(s) 1, 2, 3, 4
RCT ID #(s) 1, 2, 3, 4

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Rocky Flats Environmental Technology Site

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THE ART OF TECHNOLOGY

MAP ID 02-0312/112-IN-5SC September 5, 2002

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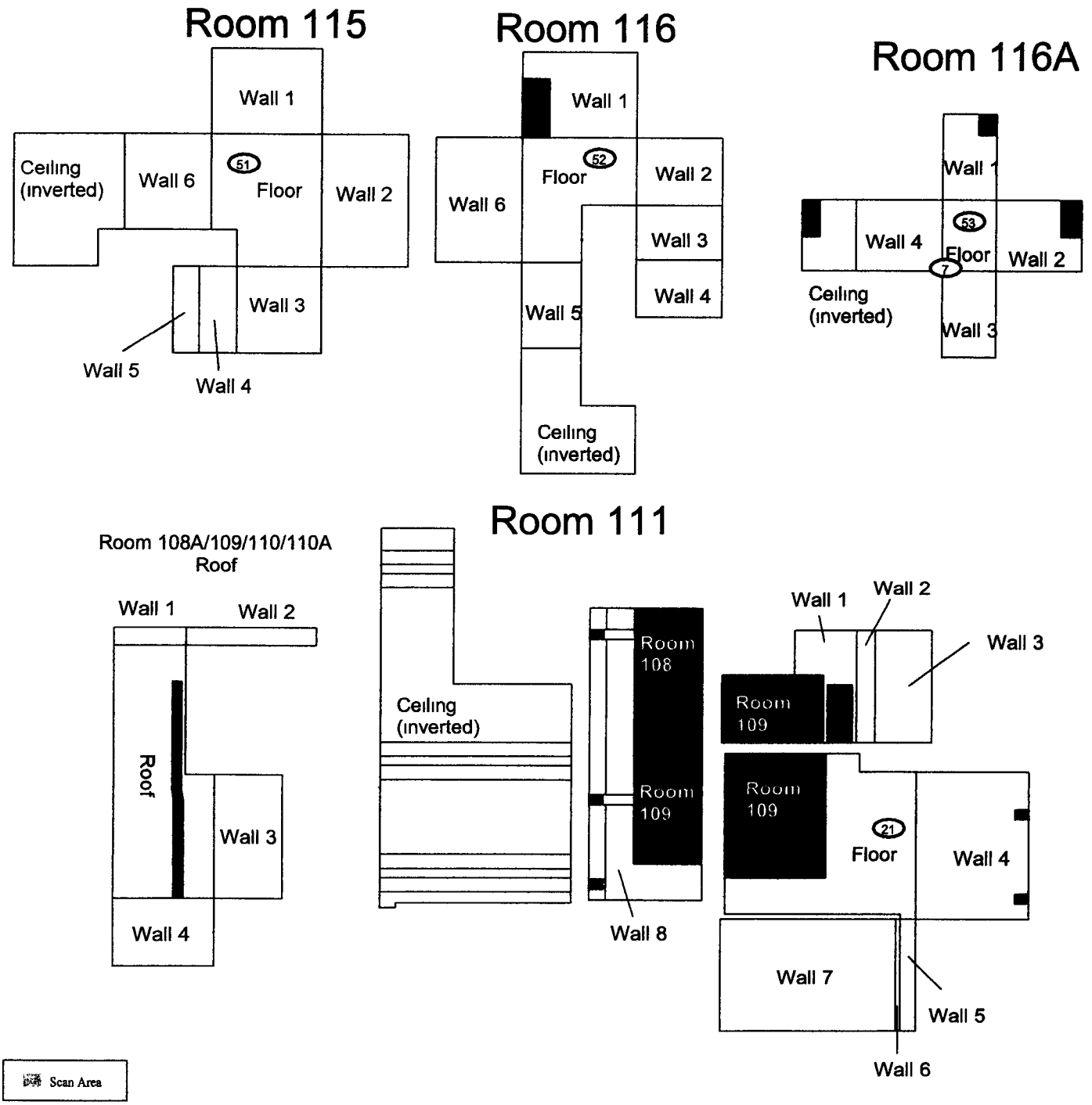
PRE-DEMOLITION SURVEY FOR BUILDING 112

Survey Area A **Survey Unit B112-A-001** **Classification 3**
Building 112
Survey Unit Description Interior of Building
Total Area 3535 sq m **Total Floor Area 825 sq m**



SURVEY MAP LEGEND			
Smear & TSA Location	Neither the United States Government nor Kaiser Hill Co., nor DynCorp I&ET nor any agency thereof, nor any of their employees, makes any warranty express or implied, or assumes any legal liability or responsibility for the accuracy completeness, or usefulness of any information, apparatus product, or process disclosed, or represents that its use would not infringe privately owned rights	N	U S Department of Energy Rocky Flats Environmental Technology Site
Smear, TSA & Sample Location		0 FEET 25 0 METERS 8	Prepared by GIS Dept 303-966 7707 Prepared for
Open/Inaccessible Area	**Scan Survey Information**		DynCorp THE ART OF TECHNOLOGY
Area in Another Survey Unit	**Survey Instrument ID #(s)** 1, 2, 3, 4 **RCT ID #(s)** 1, 2, 3, 4	1 inch = 18 feet 1 grid sq = 1 sq m	MAP ID 02-0312/112-IN-6SC September 5, 2002

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ATTACHMENT C-2

Survey Unit B112-B-002

Radiological Data Summaries and Survey Maps

SURVEY UNIT B112-B-002
RADIOLOGICAL DATA SUMMARY - PDS

Survey Unit Description:B112 (Exterior)

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B112-B-002
PDS Data Summary

Total Surface Activity Measurements

	20 Number Required	20 Number Obtained	
MIN	4 9		dpm/100 cm^2
MAX	55 9		dpm/100 cm^2
MEAN	19 3		dpm/100 cm^2
STD DEV	12 7		dpm/100 cm^2
TRANSURANIC DCGL$_W$	100		dpm/100 cm^2

Removable Activity Measurements

	20 Number Required	20 Number Obtained	
MIN	-0 9		dpm/100 cm^2
MAX	2 7		dpm/100 cm^2
MEAN	0 1		dpm/100 cm^2
STD DEV	0 9		dpm/100 cm^2
TRANSURANIC DCGL$_W$	20		dpm/100 cm^2

604

SURVEY UNIT B112-B-002
TSA - DATA SUMMARY

Manufacturer	NE Electra	NE Electra	NE Electra	NE Electra
Model	DP 6	DP 6	DP-6	DP 6
Instrument ID#	1	2	7	8
Serial #	2343	2344	396	394
Cal Due Date	10/2/02	1/17/03	1/12/03	1/12/03
Analysis Date	8/15/02	8/15/02	8/21/02	8/21/02
Alpha Eff (c/d)	0 223	0 222	0 234	0 226
Alpha Bkgd (cpm)	0	1	5 0	4 0
Sample Time (min)	1 5	1 5	1 5	1 5
LAB Time (min)	1 5	1 5	1 5	1 5
MDC (dpm/100cm^2)	48	48	48 0	48 0

Sample Location Number	Instrument ID#	Sample Gross Counts (cpm)	Sample Gross Activity (dpm/100cm2)	LAB Gross Counts (cpm)	LAB Gross Activity (dpm/100cm2)	Sample Net Activity (dpm/100cm2)[1]
1	1	4 7	21 1	4	17 9	4 9
2	2	16	72 1	6	27 0	55 9
3	2	10	45 0	2 7	12 2	28 9
4	1	8 7	39 0	1 3	5 8	22 8
5	2	8 7	39 2	4 7	21 2	23 0
6	2	4 7	21 2	4 7	21 2	5 0
7	2	5 3	23 9	4	18 0	7 7
8	1	8	35 9	4	17 9	19 7
9	1	6 7	30 0	2 7	12 1	13 9
10	2	6	27 0	1 3	5 9	10 8
11	2	8	36 0	1 3	5 9	19 8
12	2	6	27 0	8	36 0	10 8
13	2	6	27 0	6 7	30 2	10 8
14	1	6.7	30 0	1 3	5 8	13 9
15	2	11 3	50 9	8	36 0	34 7
16	1	6 7	30 0	0 7	3 1	13 9
17	1	9 3	41 7	3 3	14 8	25 5
18	1	4 7	21 1	3 3	14 8	4 9
19	1	9 3	41 7	3 3	14 8	25 5
20	1	11 3	50 7	0 7	3 1	34 5
					16 2	Sample LAB Average
					MIN	4 9
					MAX	55 9
					MEAN	19 3
					SD	12 7

1 Average LAB used to subtract from Gross Sample Activity

QC Measurements

7 QC	1	4 7	21 1	3 3	14 8	6 2
18 QC	2	8 7	39 2	3 3	14 9	24 4
					14 8	QC LAB Average
					MIN	6 2
					MAX	24 4
					MEAN	15 3
					Transuranic $DCGL_W$	100

1 Average QC LAB used to subtract from Gross Sample Activity

65

SURVEY UNIT B112-B-002
RSC - DATA SUMMARY

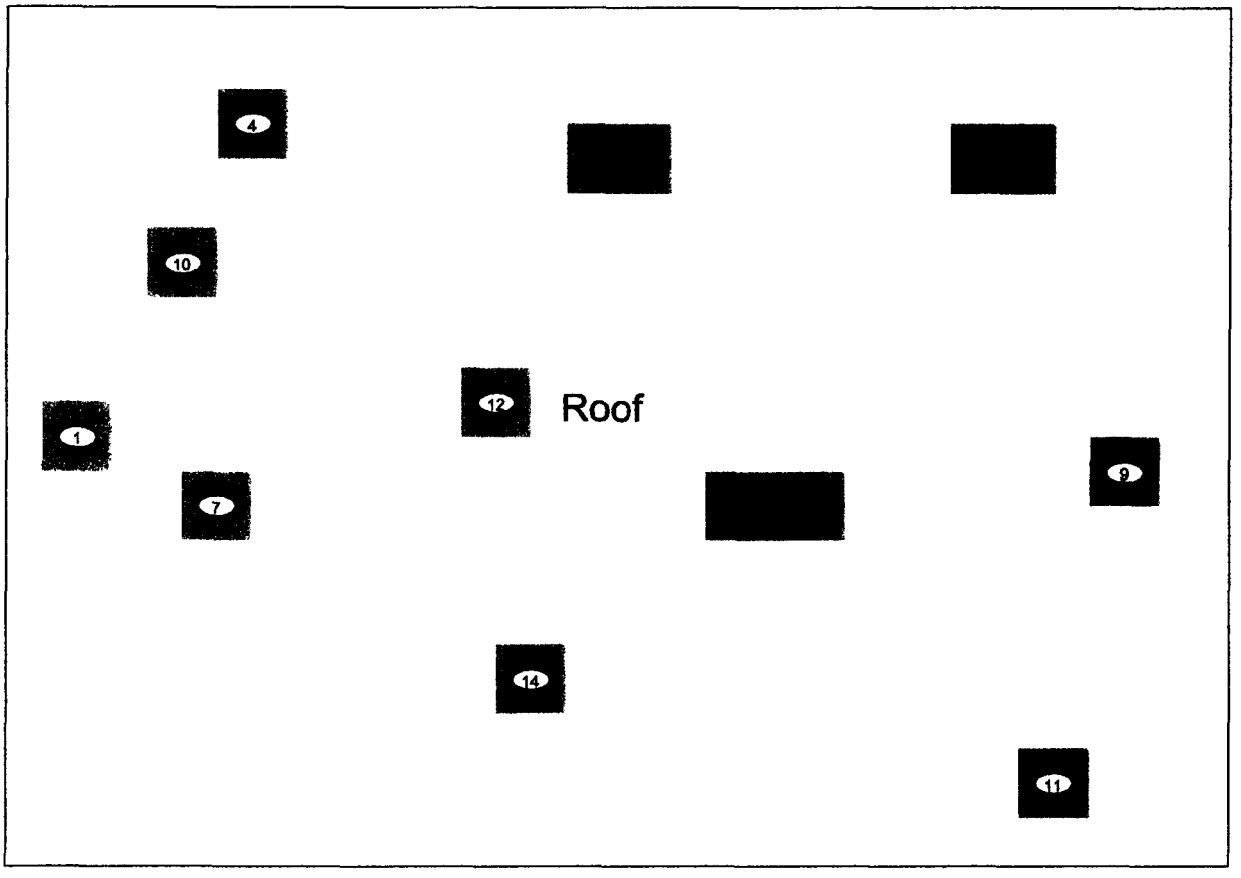
Manufacturer	Eberline	Eberline	Eberline	Eberline
Model	SAC-4	SAC-4	SAC-4	SAC-4
Instrument ID#	3	4	5	6
Serial #	824	851	963	966
Cal Due Date	10/1/02	10/29/02	1/3/03	11/6/02
Analysis Date	8/15/02	8/15/02	8/15/02	8/15/02
Alpha Eff (c/d)	0 33	0 33	0 33	0 33
Alpha Bkgd (cpm)	0 3	0 2	0 1	0 1
Sample Time (min)	2	2	2	2
Bkgd Time (min)	10	10	10	10
MDC (dpm/100cm^2)	8 8	8 0	7 0	7 0

Sample Location Number	Instrument ID#	Gross Counts (cpm)	Net Activity (dpm/100 cm^2)
1	3	0 0	-0 9
2	4	1 0	0 9
3	5	2 0	2 7
4	6	0 0	-0 3
5	3	1 0	0 6
6	4	0 0	-0 6
7	5	0 0	-0 3
8	6	0 0	-0 3
9	3	1 0	0 6
10	4	0 0	-0 6
11	5	1 0	1 2
12	6	0 0	-0 3
13	3	1 0	0 6
14	4	0 0	-0 6
15	5	0 0	0 3
16	6	0 0	0 3
17	3	0 0	-0 9
18	4	0 0	-0 6
19	5	1 0	1 2
20	6	0 0	-0 3
		MIN	-0 9
		MAX	2 7
		MEAN	0 1
		SD	0 9
		Transuranic DCGL$_W$	20

66

PRE-DEMOLITION SURVEY FOR BUILDING 112

Survey Area B **Survey Unit B112-B-002** **Classification 3**
Building 112
Survey Unit Description Exterior of Building
Total Area 1528 sq m **Roof Area 865 sq m**



Scan Area

SURVEY MAP LEGEND

- Smear & TSA Location
- Smear TSA & Sample Location
- Open/Inaccessible Area
- Area in Another Survey Unit

N

0 FEET 25
0 METERS 8

1 inch = 18 feet 1 grid sq = 1 sq m

Scan Survey Information
Survey Instrument ID #(s) 1, 2, 7, 8
RCT ID #(s) 1, 2, 3, 4

U S Department of Energy
Rocky Flats Environmental Technology Site

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DynCorp
THE ART OF TECHNOLOGY

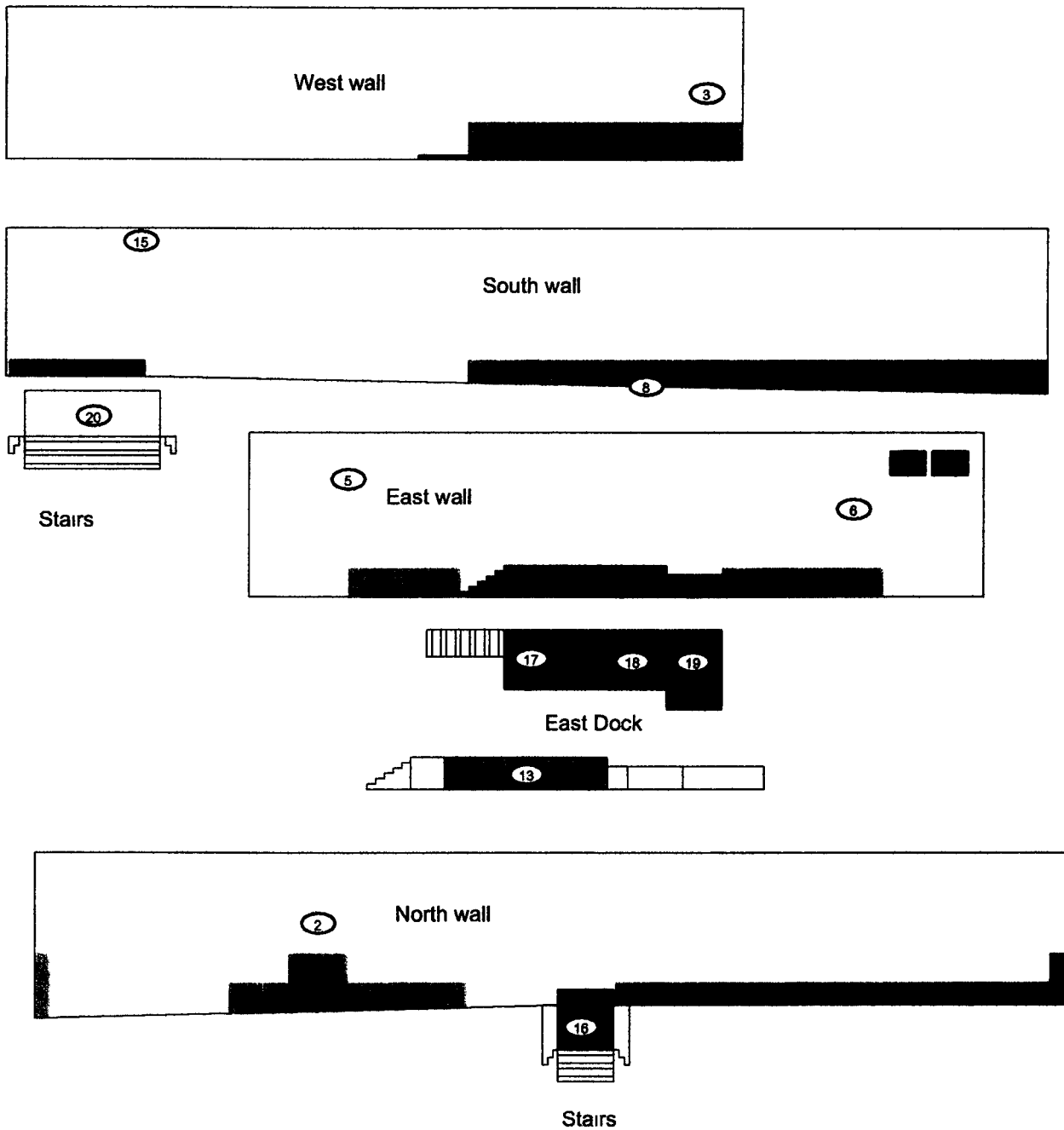
Prepared for [redacted]

MAP ID 02-0312/112-EX-1SC October 7, 2002

67

PRE-DEMOLITION SURVEY FOR BUILDING 112

Survey Area B **Survey Unit B112-B-002** **Classification 3**
Building 112
Survey Unit Description Exterior of Building
Total Area 1528 sq m **Roof Area 865 sq m**



SURVEY MAP LEGEND
- Smear & TSA Location
- Smear TSA & Sample Location
- Open/Inaccessible Area
- Area in Another Survey Unit

N

0 FEET 25
0 METERS 8

1 inch = 18 feet 1 grid sq = 1 sq m

Scan Survey Information
Survey Instrument ID #(s) 1, 2, 7, 8
RCT ID #(s) 1, 2, 3, 4

U S Department of Energy
Rocky Flats Environmental Technology Site

Prepared by GIS Dept 303-966 7707 Prepared for

DynCorp
THE ART OF TECHNOLOGY

MAP ID 02-0312/112-EX-2SC Sept 23, 2002

ATTACHMENT C-3

Survey Unit B223-A-001

Radiological Data Summaries and Survey Maps

SURVEY UNIT B223-A-001
RADIOLOGICAL DATA SUMMARY - PDS

Survey Unit Description B223 Interior

70

Total Surface Activity Measurements

	75 Number Required	75 Number Obtained	
MIN	-12 6		dpm/100 cm^2
MAX	48 1		dpm/100 cm^2
MEAN	9 8		dpm/100 cm^2
STD DEV	12 7		dpm/100 cm^2
TRANSURANIC DCGL$_W$	100		dpm/100 cm^2

Removable Activity Measurements

	75 Number Required	75 Number Obtained	
MIN	1 2		dpm/100 cm^2
MAX	4 2		dpm/100 cm^2
MEAN	0 3		dpm/100 cm^2
STD DEV	1 1		dpm/100 cm^2
TRANSURANIC DCGL$_W$	20		dpm/100 cm^2

71

B223-A-001
PDS Data Summary

Manufacturer	NE Electra	NE Electra	NE Electra	NE Electra	NE Electra	NE Electra
Model	DP 6	DP-6	DP 6	DP-6	DP 6	DP 6
Instrument ID#	1	2	3	4	5	6
Serial #	1250	2352	396	2343	1260	1366
Cal Due Date	10/10/02	2/7/03	1/12/03	10/2/02	2/21/03	2/1/03
Analysis Date	9/4/02	9/4/02	9/4/02	9/4/02	9/4/02	9/4/02
Alpha Eff (c/d)	0 213	0 238	0 234	0 223	0 219	0 204
Alpha Bkgd (cpm)	0 0	3 0	1 0	3 0	6 0	3 0
Sample Time (min)	1 5	1 5	1 5	1 5	1 5	1 5
LAB Time (min)	1 5	1 5	1 5	1 5	1 5	1 5
MDC (dpm/100cm^2)	48 0	48 0	48 0	48 0	48 0	48 0

Sample Location Number	Instrument ID#	Sample Gross Counts (cpm)[2]	Sample Gross Activity (dpm/100cm2)	LAB Gross Counts (cpm)	LAB Gross Activity (dpm/100cm2)	Sample Net Activity (dpm/100cm2)[1]
1	2	2	8 4	2.7	11 3	4 2
2	2	4	16 8	1 3	5 5	4 2
3	2	0 7	2 9	0 7	2 9	9 7
4	1	4	18 8	2	9 4	6 2
5	2	4	16 8	2	8 4	4 2
6	2	4	16 8	2 7	11 3	4 2
7	2	4	16 8	4 7	19 7	4 2
8	1	2 7	12 7	5 3	24 9	0 1
9	1	6 7	31 5	1 3	6 1	18 8
10	2	2	8 4	3 3	13 9	4 2
11	3	10	42 7	4	17 1	30 1
12	1	0 7	3 3	2	9 4	9 3
13	1	4	18 8	0 7	3 3	6 2
14	1	4	18 8	2 7	12 7	6 2
15	2	3 3	13 9	3 3	13 9	1 2
16	3	6	25 6	2	8 5	13 0
17	3	1 3	5 6	4 7	20 1	7 1
18	3	7 3	31 2	3 3	14 1	18 6
19	4	9 3	41 7	3 3	14 8	29 1
20	4	6	26 9	1 3	5 8	14 3
21	1	5 3	24 9	4 7	22 1	12 3
22	1	5 3	24 9	0	0 0	12 3
23	1	1 3	6 1	1 3	6 1	6 5
24	1	8 7	40 8	4	18 8	28 2
25	2	2 7	11 3	2 7	11 3	1 3
26	3	0	0 0	2	8 5	12 6
27	3	4	17 1	0	0 0	4 5
28	4	4 7	21 1	1 3	5 8	8 5
29	4	6 7	30 0	2 7	12 1	17 4
30	3	2	8 5	6	25 6	4 1
31	4	4	17 9	3 3	14 8	5 3
32	3	8	34 2	3 3	14 1	21 6
33	4	1 3	5 8	0 7	3 1	6 8
34	4	3 6	16 1	3	13 5	3 5
35	4	6 7	30 0	2 7	12 1	17 4
36	3	3 3	14 1	2	8 5	1 5

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B223-A-001
PDS Data Summary

Sample Location Number	Instrument ID#	Sample Gross Counts (cpm)[2]	Sample Gross Activity (dpm/100cm2)	LAB Gross Counts (cpm)	LAB Gross Activity (dpm/100cm2)	Sample Net Activity (dpm/100cm2)[1]
37	4	33	148	27	121	22
38	3	4	171	33	141	45
39	4	4	179	23	103	53
40	3	27	115	0	00	11
41	2	53	223	33	139	96
42	2	27	113	07	29	13
43	2	33	139	33	139	12
44	2	6	252	13	55	126
45	2	53	223	47	197	96
46	2	33	139	27	113	12
47	2	53	223	27	113	96
48	2	4	168	2	84	42
49	2	4	168	4	168	42
50	2	53	223	13	55	96
51	2	67	282	2	84	155
52	2	4	168	27	113	42
53	2	53	223	13	55	96
54	2	33	139	13	55	12
55	1	8	376	33	155	249
56	3	4	171	4	171	45
57	3	47	201	27	115	75
58	4	24	108	33	148	-19
59	4	6	269	2	90	143
60	3	33	141	13	56	15
61	3	10	427	14	60	301
62	1	31	146	2	94	19
63	1	53	249	27	127	123
64	1	53	249	07	33	123
65	5	107	489	8	365	362
66	5	73	333	27	123	207
67	5	107	489	6	274	362
68	5	133	607	67	306	481
69	1	2	94	2	94	-32
70	5	8	365	47	215	239

B223-A-001
PDS Data Summary

Sample Location Number	Instrument ID#	Sample Gross Counts (cpm)[2]	Sample Gross Activity (dpm/100cm2)	LAB Gross Counts (cpm)	LAB Gross Activity (dpm/100cm2)	Sample Net Activity (dpm/100cm2)[1]
71	5	6	27 4	7 3	33 3	14 8
72	5	8 7	39 7	4	18 3	27 1
73	5	12	54 8	6	27 4	42 2
74	5	9 3	42 5	3 3	15 1	29 8
75	5	8	36 5	5 3	24 2	23 9
					12 6	Sample LAB Average
					MIN	12 6
					MAX	48 1
					MEAN	9 8
					SD	12 7
					Transuranic $DCGL_W$	100

1 Average LAB used to subtract from Gross Sample Activity

QC Measurements

16 QC	2	7 3	30 7	1 3	5 5	21 3
70 QC	4	5 3	23 8	1 3	5 8	14 4
18 QC	4	2 7	12 1	3 3	14 8	2 7
28 QC	3	5 3	22 6	2 7	11 5	13 2
					9 4	QC LAB Average
					MIN	2 7
					MAX	21 3
					MEAN	12 9
					Transuranic $DCGL_W$	100

1 Average QC LAB used to subtract from Gross Sample Activity

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B223-A-001
PDS Data Summary

Manufacturer	Eberline	Eberline	Eberline	Eberline
Model	SAC-4	SAC-4	SAC-4	SAC-4
Instrument ID#	7	8	9	10
Serial #	824	851	963	952
Cal Due Date	10/1/02	10/29/02	1/3/03	1/31/03
Analysis Date	9/4/02	9/4/02	9/4/02	9/4/02
Alpha Eff (c/d)	0 33	0 33	0 33	0 33
Alpha Bkgd (cpm)	0 2	0 2	0 1	0 2
Sample Time (min)	2	2	2	2
Bkgd Time (min)	10	10	10	10
MDC (dpm/100cm^2)	9 0	9 0	9 0	9 0

Manufacturer	Eberline	Eberline	Eberline	Eberline
Model	SAC-4	SAC-4	SAC-4	SAC-4
Instrument ID#	11	12	13	14
Serial #	824	851	963	952
Cal Due Date	10/1/02	10/29/02	1/3/03	1/31/03
Analysis Date	9/5/02	9/5/02	9/5/02	9/5/02
Alpha Eff (c/d)	0 33	0 33	0 33	0 33
Alpha Bkgd (cpm)	0 2	0 3	0 4	0 2
Sample Time (min)	2	2	2	2
Bkgd Time (min)	10	10	10	10
MDC (dpm/100cm^2)	9 0	9 0	9 0	9 0

Sample Location Number	Instrument ID#	Gross Counts (cpm)	Net Activity (dpm/100 cm^2)
1	11	0 0	-0 6
2	12	0 0	0 9
3	10	0 0	-0 6
4	8	0 0	-0 6
5	8	0 0	-0 6
6	13	1 0	0 3
7	14	0 0	-0 6
8	10	0 0	-0 6
9	8	1 0	0 9
10	7	1 0	0 9
11	9	1 0	1 2
12	9	0 0	-0 3
13	9	0 0	-0 3
14	8	2 0	2 4
15	11	0 0	-0 6
16	9	2 0	2 7
17	7	2 0	2 4
18	8	1 0	0 9
19	10	0 0	-0 6
20	7	1 0	0 9
21	9	1 0	1 2
22	10	1 0	0 9

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B223-A-001
PDS Data Summary

Sample Location Number	Instrument ID#	Gross Counts (cpm)	Net Activity (dpm/100 cm^2)
23	7	10	09
24	7	10	09
25	12	00	-09
26	8	20	24
27	9	00	-03
28	10	10	09
29	7	10	09
30	8	00	-06
31	9	00	-03
32	10	20	24
33	7	00	-06
34	8	00	-06
35	9	30	42
36	10	00	-06
37	7	10	09
38	8	10	09
39	9	00	-03
40	10	10	09
41	13	10	03
42	14	10	09
43	11	00	-06
44	12	00	-09
45	13	00	-12
46	14	00	-06
47	11	10	09
48	12	00	-09
49	13	00	-12
50	14	10	09
51	11	10	09
52	12	10	06
53	13	00	-12
54	14	10	09
55	10	00	-06
56	7	00	-06
57	7	10	09
58	8	20	24
59	9	00	-03
60	10	10	09
61	7	10	09
62	9	10	12
63	7	00	-06
64	8	00	-06
65	11	00	-06
66	12	10	06
67	13	20	18
68	14	00	-06
69	10	00	-06
70	11	00	-06

B223-A-001
PDS Data Summary

Sample Location Number	Instrument ID#	Gross Counts (cpm)	Net Activity (dpm/100 cm^2)
71	12	10	06
72	13	00	-12
73	14	00	-06
74	11	00	-06
75	12	20	21
		MIN	-12
		MAX	42
		MEAN	03
		SD	11
		Transuranic $DCGL_W$	**20**

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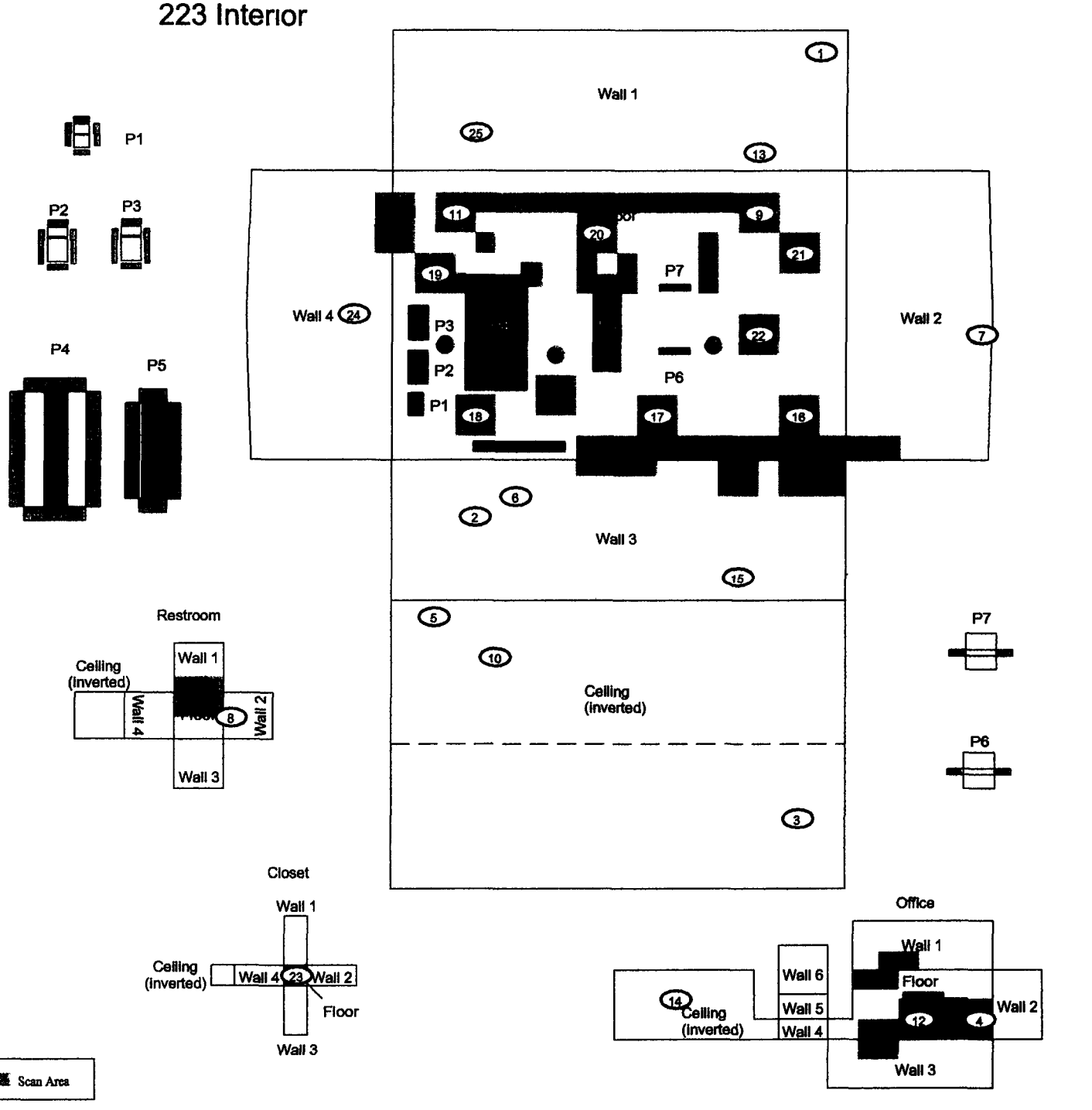
PRE-DEMOLITION SURVEY FOR BUILDING 223

Survey Area A **Survey Unit B223-A-001** **Classification 3**
Building 223
Survey Unit Description Interior of Building
Total Area 1323 sq m **Floor Area 318 sq m**



SURVEY MAP LEGEND

- Smear & TSA Location
- Smear, TSA & Sample Location
- Open/Inaccessible Area
- Area in Another Survey Unit

Scan Survey Information
Survey Instrument ID #(s) 6
RCT ID #(s) 6

N

0 FEET 30
0 METERS 10

1 inch = 24 feet 1 grid sq = 1 sq m

U S Department of Energy
Rocky Flats Environmental Technology Site

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DynCorp
THE ART OF TECHNOLOGY

MAP ID 02-0589/223-INSC Sept 23, 2002

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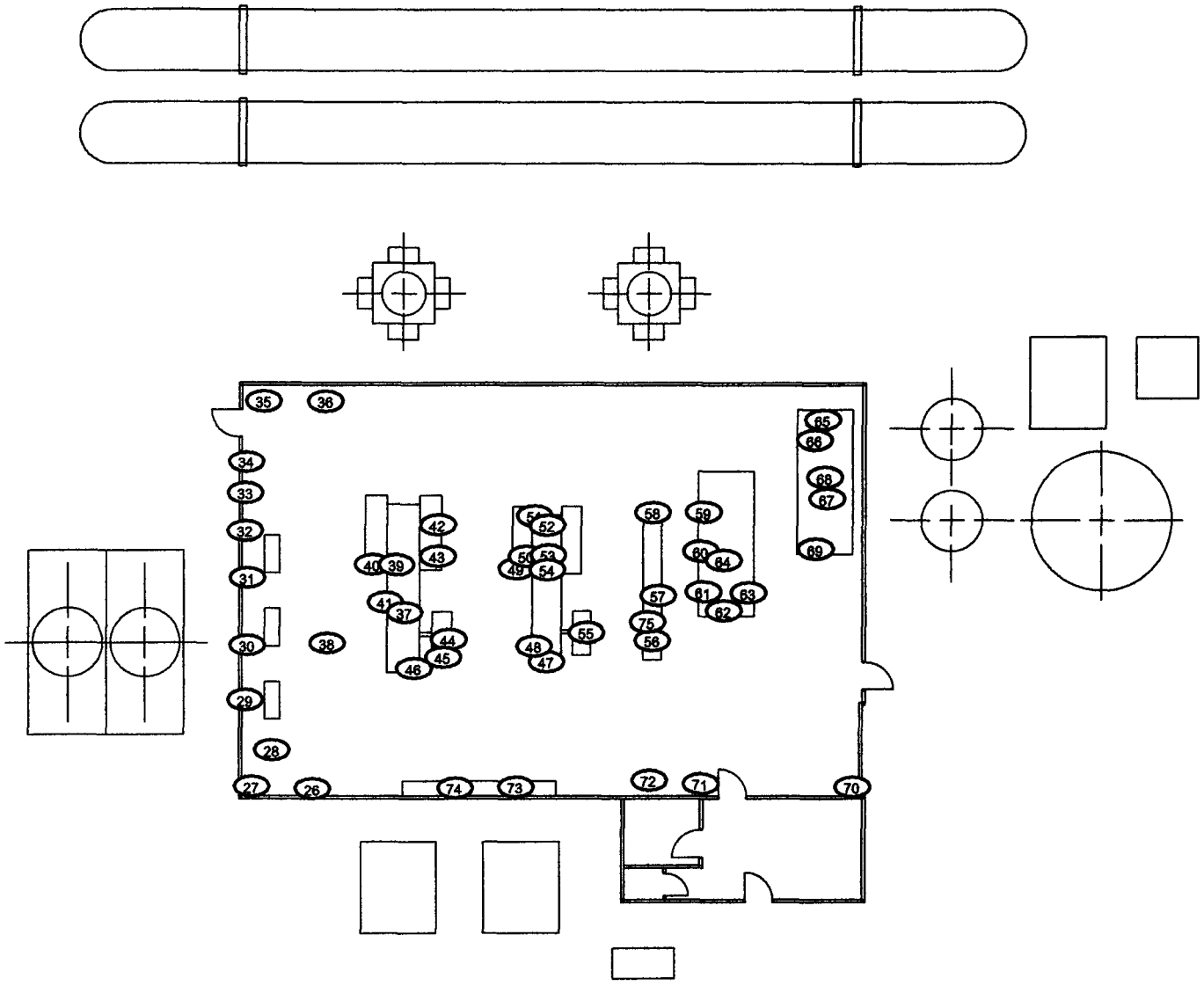
PRE-DEMOLITION SURVEY FOR BUILDING 223

Survey Area A **Survey Unit B223-A-001** **Classification 3**
Building 223
Survey Unit Description Interior of Building
Total Area N/A sq m **Floor Area N/A sq m**

BLDG 223
INTERIOR FLOOR PLAN



SURVEY MAP LEGEND
- Smear & TSA Location
- Smear, TSA & Sample Location
- Open/Inaccessible Area
- Area in Another Survey Unit

N

0 FEET 0
0 METERS 0

DRAWING NOT TO SCALE

Scan Survey Information
Survey Instrument ID #(s) _____
RCT ID #(s) _____

U S Department of Energy
Rocky Flats Environmental Technology Site

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DynCorp
THE ART OF TECHNOLOGY

MAP ID 02-0589/223-EQUP-IN Oct. 2, 2002

ATTACHMENT C-4

Survey Unit B223-B-002

Radiological Data Summaries and Survey Maps

SURVEY UNIT B223-B-002
RADIOLOGICAL DATA SUMMARY - PDS

Survey Unit Description B223 Exterior

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B223-B-002
PDS Data Summary

Total Surface Activity Measurements

	70 Number Required	70 Number Obtained	
MIN	2 8		dpm/100 cm^2
MAX	94 3		dpm/100 cm^2
MEAN	36 0		dpm/100 cm^2
STD DEV	23 5		dpm/100 cm^2
TRANSURANIC DCGL$_W$	100		dpm/100 cm^2

Removable Activity Measurements

	70 Number Required	70 Number Obtained	
MIN	1 5		dpm/100 cm^2
MAX	4 2		dpm/100 cm^2
MEAN	0 6		dpm/100 cm^2
STD DEV	1 2		dpm/100 cm^2
TRANSURANIC DCGL$_W$	20		dpm/100 cm^2

B223-B-002
PDS Data Summary

Manufacturer	NE Electra	NE Electra	NE Electra	NE Electra	NE Electra	NE Electra
Model	DP 6	DP 6	DP 6	DP 6	DP 6	DP 6
Instrument ID#	1	2	3	4	5	6
Serial #	1260	2344	394	1260	396	1366
Cal Due Date	2/21/03	1/17/03	1/12/03	2/21/03	1/12/03	2/1/03
Analysis Date	8/23/02	8/23/02	8/26/02	8/26/02	8/26/02	8/29/02
Alpha Eff (c/d)	0 219	0 222	0 226	0 219	0 234	0 204
Alpha Bkgd (cpm)	6 0	2 7	3 0	3 0	3 0	3 0
Sample Time (min)	1 5	1 5	1 5	1 5	1 5	1 5
LAB Time (min)	1 5	1 5	1 5	1 5	1 5	1 5
MDC (dpm/100cm^2)	48 0	48 0	48 0	48 0	48 0	48 0

Manufacturer	NE Electra	NE Electra	NE Electra	NE Electra	NE Electra	NE Electra
Model	DP 6	DP 6	DP 6	DP 6	DP 6	DP 6
Instrument ID#	7	8	13	14	19	20
Serial #	394	2343	2352	394	1250	396
Cal Due Date	1/12/03	10/2/02	2/7/03	1/12/03	10/10/02	1/12/03
Analysis Date	8/29/02	8/29/02	9/6/02	9/6/02	9/11/02	9/16/02
Alpha Eff (c/d)	0 226	0 223	0 238	0 226	0 213	0 239
Alpha Bkgd (cpm)	0 0	2 0	2 0	1 0	1 3	2 0
Sample Time (min)	1 5	1 5	1 5	1 5	1 5	1 5
LAB Time (min)	1 5	1 5	1 5	1 5	1 5	1 5
MDC (dpm/100cm^2)	48 0	48 0	48 0	48 0	48 0	48 0

Sample Location Number	Instrument ID#	Sample Gross Counts (cpm)^2	Sample Gross Activity (dpm/100cm2)	LAB Gross Counts (cpm)	LAB Gross Activity (dpm/100cm2)	Sample Net Activity (dpm/100cm2)$^{1\,2}$
1	1	10	45 7	7 3	33 3	24 9
2	13	8	33 6	3 3	13 9	12 9
3	1	23 3	106 4	6	27 4	85 6
4	1	14	63 9	7 3	33 3	43 2
5	1	12 7	58 0	6	27 4	37 2
6	1	12 7	58 0	8	36 5	37 2
7	1	17 3	79 0	6 7	30 6	58 3
8	1	21 3	97 3	6 7	30 6	76 5
9	13	8 7	36 6	2	8 4	15 8
10	1	16	73 1	6 7	30 6	52 3
11	1	8 7	39 7	7 3	33 3	19 0
12	1	10	45 7	4 7	21 5	24 9
13	1	8 7	39 7	8	36 5	19 0
14	1	13 3	60 7	8	36 5	40 0
15	13	16 7	70 2	6	25 2	49 4
16	2	6	27 0	0	0 0	6 3
17	13	9 3	39 1	3 3	13 9	18 3
18	13	10	42 0	5 3	22 3	21 3
19	13	8 7	36 6	2 7	11 3	15 8
20	1	10 7	48 9	6 7	30 6	28 1
21	3	12 7	56 2	2 7	11 9	35 5
22	3	16	70 8	5 3	23 5	50 1
23	4	13 3	60 7	7 3	33 3	40 0
24	3	20	88 5	3 3	14 6	67 8
25	4	14 7	67 1	2 7	12 3	46 4

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B223-B-002
PDS Data Summary

Sample Location Number	Instrument ID#·	Sample Gross Counts (cpm)[2]	Sample Gross Activity (dpm/100cm2)	LAB Gross Counts (cpm)	LAB Gross Activity (dpm/100cm2)	Sample Net Activity (dpm/100cm2)[1,2]
26	3	14 7	65 0	6	26 5	44 3
27	5	18 7	79 9	4	17 1	59 2
28	8	20 7	92 8	27	12 1	72 1
29	19	19 3	90 6	27	12 7	69 9
30	3	16 7	73 9	67	29 6	53 2
31	6	11 3	55 4	53	26 0	34 6
32	4	24	109 6	87	39 7	88 8
33	7	26	115 0	47	20 8	94 3
34	8	14 7	65 9	27	12 1	45 2
35	7	8	35 4	67	29 6	14 7
36	7	7 3	32 3	73	32 3	11 6
37	6	6 7	32 8	4	19 6	12 1
38	8	4	17 9	4	17 9	2 8
39	6	8 7	42 6	33	16 2	21 9
40	8	6	26 9	27	12 1	6 2
41	8	4	17 9	07	3 1	2 8
42	6	6 7	32 8	0	0 0	12 1
43	7	5 3	23 5	6	26 5	2 7
44	6	12	58 8	73	35 8	38 1
45	8	8	35 9	4	17 9	15 1
46	7	13 3	58 8	6	26.5	38 1
47	7	14 7	65 0	4	17 7	44 3
48	6	9 3	45 6	27	13 2	24 8
49	8	10 7	48 0	27	12 1	27 2
50	7	14	61 9	47	20 8	41 2
51	6	4 7	23 0	4 7	23 0	2 3
52	7	8	35 4	67	29 6	14 7
53	6	8 7	42 6	2	9 8	21 9
54	8	11 3	50 7	4	17 9	29 9
55	8	24 7	110 8	13	5 8	90 0
56	7	20	88 5	33	14 6	67 8
57	7	10	44 2	67	29 6	23 5
58	8	21 3	95 5	4	17 9	74 8
59	20	19 7	82 4	4 7	19 7	61 7
60	8	15 3	68 6	2	9 0	47 9
61	6	10	49 0	4	19 6	28 3
62	8	16 3	73 1	4	17 9	52 4
63	8	7 3	32 7	33	14 8	12 0
64	6	8 7	42 6	67	32 8	21 9
65	8	8 7	39 0	6	26 9	18 3
66	8	14 7	65 9	27	12 1	45 2
67	8	12	53 8	27	12 1	33 1
68	6	12	58 8	27	13 2	38 1
69	6	7 3	35 8	33	16 2	15 0
70	8	11 3	50 7	27	12 1	29 9

20 7	Sample LAB Average
MIN	2 8
MAX	94 3
MEAN	36 0
SD	23 5
Transuranic $DCGL_W$	100

1 Average LAB used to subtract from Gross Sample Activity

2 The initial Sample Net Activity for locations 28 29 and 59 was 117 2 113 4 and 278 6 dpm/100cm2 respectively These locations were sealed and re surveyed after a decay period Re survey results are reported

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B223-B-002
PDS Data Summary

Sample Location Number	Instrument ID#·	Sample Gross Counts (cpm)[2]	Sample Gross Activity (dpm/100cm2)	LAB Gross Counts (cpm)	LAB Gross Activity (dpm/100cm2)	Sample Net Activity (dpm/100cm2)[1,2]
QC Measurements						
21 QC	8	80	359	2	90	113
67 QC	6	87	426	67	328	180
23 QC	6	87	426	67	328	180
4 QC	8	47	211	53	238	35

246	QC LAB Average
MIN	35
MAX	180
MEAN	110
Transuranic $DCGL_W$	100

1 Average QC LAB used to subtract from Gross Sample Activity

B223-B-002
PDS Data Summary

Manufacturer	Eberline	Eberline	Eberline	Eberline
Model	SAC-4	SAC-4	SAC-4	SAC-4
Instrument ID#	9	10	11	12
Serial #	824	851	963	966
Cal Due Date	10/1/02	10/29/02	1/3/03	11/6/02
Analysis Date	8/29/02	8/29/02	8/29/02	8/29/02
Alpha Eff (c/d)	0 33	0 33	0 33	0 33
Alpha Bkgd (cpm)	0 1	0 5	0 0	0 1
Sample Time (min)	2	2	2	2
Bkgd Time (min)	10	10	10	10
MDC (dpm/100cm^2)	9 0	9 0	9 0	9 0

Manufacturer	Eberline	Eberline	Eberline	Eberline
Model	SAC-4	SAC-4	SAC-4	SAC-4
Instrument ID#	15	16	17	18
Serial #	824	851	963	952
Cal Due Date	10/1/02	10/29/02	1/3/03	1/31/03
Analysis Date	9/9/02	9/9/02	9/9/02	9/9/02
Alpha Eff (c/d)	0 33	0 33	0 33	0.33
Alpha Bkgd (cpm)	0 1	0 4	0 1	0 2
Sample Time (min)	2	2	2	2
Bkgd Time (min)	10	10	10	10
MDC (dpm/100cm^2)	9 0	9 0	9 0	9 0

Sample Location Number	Instrument ID#	Gross Counts (cpm)	Net Activity (dpm/100 cm^2)
1	9	1 0	1 2
2	15	1 0	1 2
3	9	1 0	1 2
4	10	1 0	0 0
5	11	1 0	1 5
6	12	0 0	-0 3
7	9	0 0	-0 3
8	10	3 0	3 0
9	16	1 0	0 3
10	11	1 0	1 5
11	12	0 0	-0 3
12	10	1 0	0 0
13	11	0 0	0 0
14	12	1 0	1 2
15	17	1 0	1 2
16	9	0 0	-0 3
17	15	1 0	1 2
18	18	1 0	0 9
19	16	1 0	0 3
20	10	2 0	1 5
21	10	2 0	1 5
22	11	0 0	0 0

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B223-B-002
PDS Data Summary

Sample Location Number	Instrument ID#	Gross Counts (cpm)	Net Activity (dpm/100 cm^2)
23	12	30	42
24	9	10	12
25	10	20	15
26	11	20	30
27	12	20	27
28	9	00	-03
29	10	00	-15
30	11	00	00
31	12	10	12
32	9	10	12
33	10	10	00
34	11	10	15
35	12	10	12
36	9	00	-03
37	10	10	00
38	11	00	00
39	12	20	27
40	9	00	-03
41	10	10	00
42	11	10	15
43	12	00	-03
44	9	00	-03
45	10	10	00
46	11	10	15
47	12	00	-03
48	9	00	-03
49	10	00	-15
50	11	10	15
51	12	20	27
52	9	10	12
53	10	10	00
54	11	00	00
55	12	20	27
56	9	10	12
57	10	10	00
58	11	10	15
59	12	00	-03
60	9	00	-03
61	10	00	-15
62	11	10	15
63	12	00	-03
64	9	00	-03
65	10	00	-15
66	11	10	15
67	12	00	-03
68	9	10	12
69	10	00	-15
70	11	00	00
		MIN	-15
		MAX	42
		MEAN	06
		SD	12
		Transuranic $DCGL_W$	**20**

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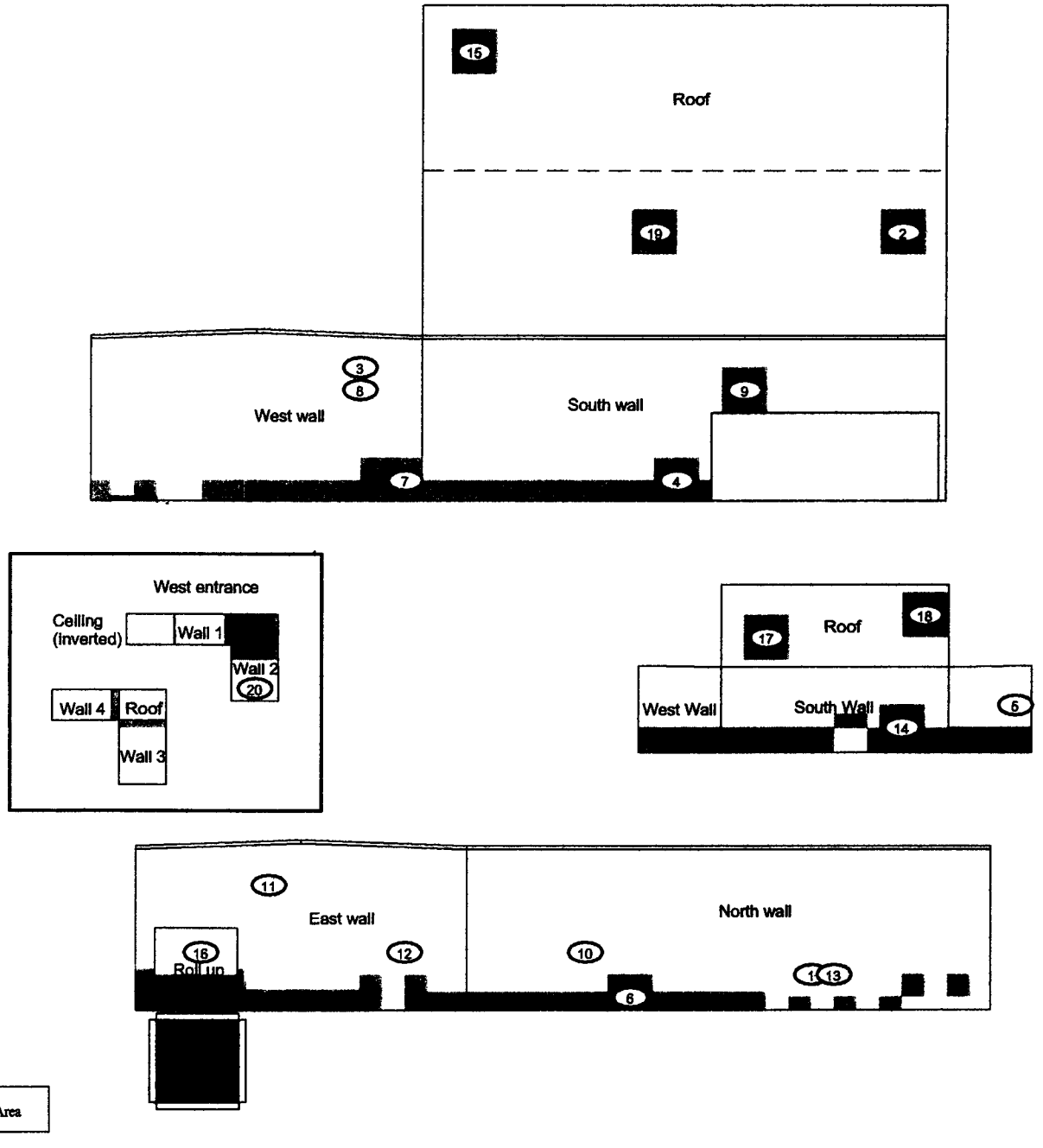
PRE-DEMOLITION SURVEY FOR BUILDING 223

Survey Area B **Survey Unit B223-B-002** **Classification 3**
Building 223
Survey Unit Description Exterior of Building
Total Area 990 sq m **Roof Area 383 sq m**

223 Exterior



SURVEY MAP LEGEND

- Smear & TSA Location
- Smear, TSA & Sample Location
- Open/Inaccessible Area
- Area in Another Survey Unit

N

0 FEET 30
0 METERS 10

1 inch = 24 feet 1 grid sq = 1 sq m.

Scan Survey Information
Survey Instrument ID #(s) 14
RCT ID #(s) 5

U S Department of Energy
Rocky Flats Environmental Technology Site

Prepared by GIS Dept 303-966 7707

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THE ART OF TECHNOLOGY

Prepared for

MAP ID. 02-0589/223-EXSC

October 7, 2002

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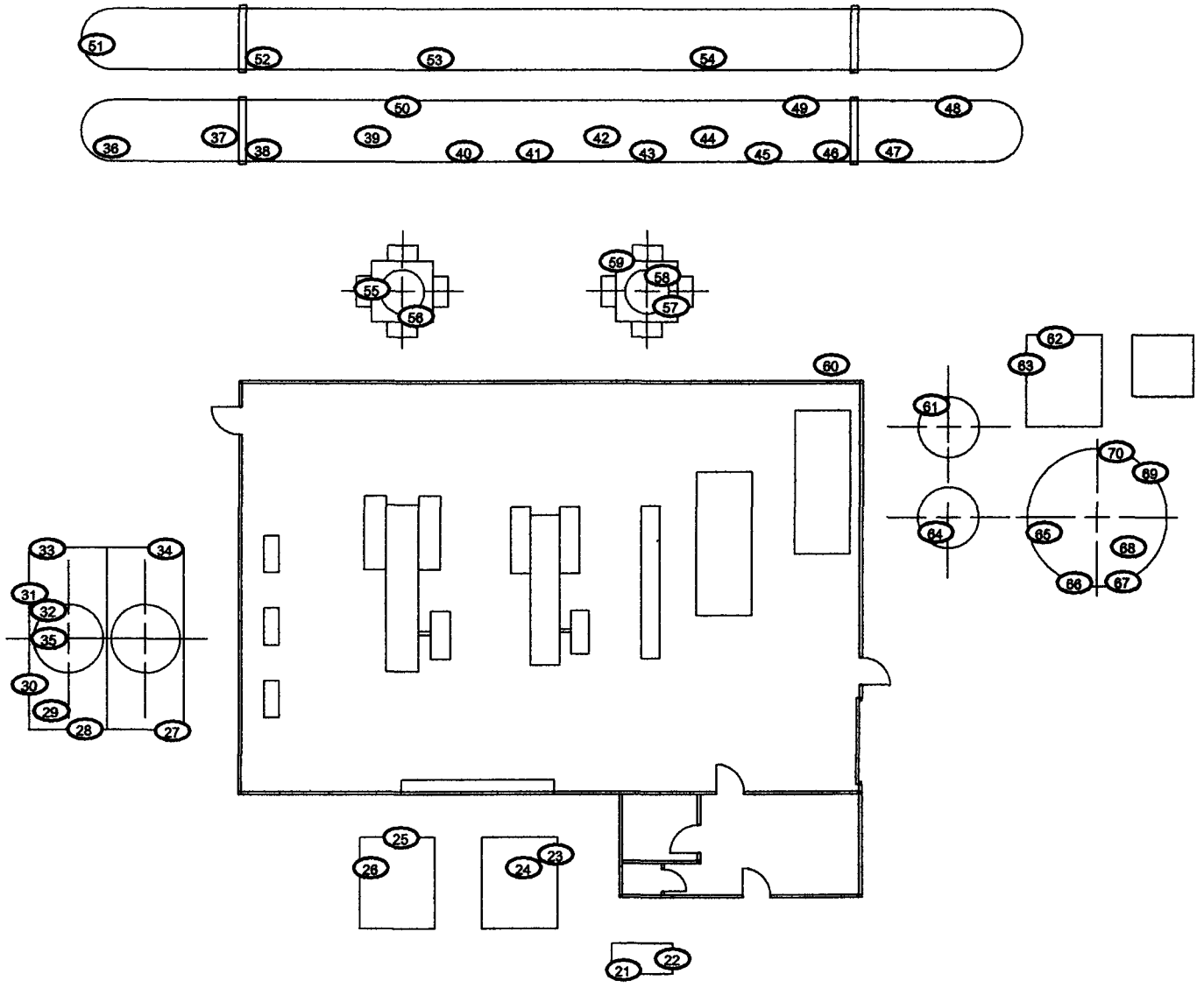
PRE-DEMOLITION SURVEY FOR BUILDING 223

Survey Area 3 **Survey Unit** B223-~~A-001~~ B-002 4w 11/8/02 **Classification** 3
Building 223
Survey Unit Description Exterior of Building
Total Area N/A sq m **Floor Area** N/A sq m

BLDG 223
EXTERIOR FLOOR PLAN



SURVEY MAP LEGEND
- Smear & TSA Location
- Smear, TSA & Sample Location
- Open/Inaccessible Area
- Area in Another Survey Unit

N

0 FEET 0
0 METERS 0

DRAWING NOT TO SCALE

Scan Survey Information
Survey Instrument ID #(s) N/A
RCT ID #(s)

U S Department of Energy
Rocky Flats Environmental Technology Site

Prepared by GIS Dept 303-966 7707

DynCorp
THE ART OF TECHNOLOGY

Prepared for [redacted]

MAP ID 02-0589/223-EQUP-EX Sept 30, 2002

ATTACHMENT C-5

Survey Unit B553-A-001

Radiological Data Summaries and Survey Maps

SURVEY UNIT B553-A-001
RADIOLOGICAL DATA SUMMARY - PDS

Survey Unit Description: B553 (Interior)

B553-A-001
PDS Data Summary

Total Surface Activity Measurements

	25 Number Required	25 Number Obtained	
MIN	0 8		dpm/100 cm^2
MAX	30 1		dpm/100 cm^2
MEAN	14 0		dpm/100 cm^2
STD DEV	7 6		dpm/100 cm^2
TRANSURANIC DCGL$_W$	100		dpm/100 cm^2

Removable Activity Measurements

	25 Number Required	25 Number Obtained	
MIN	0 3		dpm/100 cm^2
MAX	3 0		dpm/100 cm^2
MEAN	0 4		dpm/100 cm^2
STD DEV	1 0		dpm/100 cm^2
TRANSURANIC DCGL$_W$	20		dpm/100 cm^2

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SURVEY UNIT B553-A-001
TSA - DATA SUMMARY

Manufacturer	NE Tech	NE Tech
Model	DP-6	DP 6
Instrument ID#	1	2
Serial #	394	2344
Cal Due Date	1/12/03	1/17/03
Analysis Date	8/22/02	8/22/02
Alpha Eff (c/d)	0 226	0 222
Alpha Bkgd (cpm)	4 0	1 0
Sample Time (min)	1 5	1 5
LAB Time (min)	1 5	1 5
MDC (dpm/100cm^2)	48 0	48 0

Sample Location Number	Instrument ID#	Sample Gross Counts (cpm)	Sample Gross Activity (dpm/100cm2)	LAB Gross Counts (cpm)	LAB Gross Activity (dpm/100cm2)	Sample Net Activity (dpm/100cm2)[1,2]
1	1	10	44 2	5 3	23 5	30 1
2	2	3 3	14 9	5 3	23 9	0 8
3	1	5 3	23 5	4 7	20 8	9 3
4	2	3 3	14 9	3 3	14 9	0 8
5	2	5 3	23 9	7 3	32 9	9 8
6	2	6	27 0	4 7	21 2	12 9
7	2	6	27 0	2	9 0	12 9
8	1	4 7	20 8	2	8 8	6 7
9	1	9 3	41 2	5 3	23 5	27 0
10	1	6	26 5	2	8 8	12 4
11	2	7 3	32 9	6	27 0	18 8
12	2	5 3	23 9	1 3	5 9	9 8
13	2	5 3	23 9	3 3	14 9	9 8
14	1	6 7	29 6	4	17 7	15 5
15	1	6 7	29 6	5 3	23 5	15 5
16	2	6	27 0	1 3	5 9	12 9
17	2	5 3	23 9	1 3	5 9	9 8
18	1	7 3	32 3	2 7	11 9	18 2
19	2	9 3	41 9	2	9 0	27 8
20	1	6 7	29 6	2	8 8	15 5
21	1	6 7	29 6	1 3	5 8	15 5
22	1	6 7	29 6	0 7	3 1	15 5
23	2	4 7	21 2	1 3	5 9	7 1
24	2	8 7	39 2	1 3	5 9	25 1
25	1	5 3	23 5	3 3	14 6	9 3
					14 1	Sample LAB Average
					MIN	0 8
					MAX	30 1
					MEAN	14 0
					SD	7 6
					Transuranic $DCGL_W$	100

1 Average LAB used to subtract from Gross Sample Activity

QC Measurements

19 QC	1	8 0	35 4	1 3	5 8	31 0
13 QC	1	8 0	35 4	0 7	3 1	31 0
					4 4	QC LAB Average
					Transuranic $DCGL_W$	100

1 Average QC LAB used to subtract from Gross Sample Activity

93

SURVEY UNIT B553-A-001
RSC - DATA SUMMARY

Manufacturer	Eberline	Eberline	Eberline	Eberline
Model	SAC-4	SAC-4	SAC-4	SAC-4
Instrument ID#	3	4	5	6
Serial #	824	851	963	952
Cal Due Date	10/1/02	10/29/02	1/3/03	1/31/03
Analysis Date	8/22/02	8/22/02	8/22/02	8/22/02
Alpha Eff (c/d)	0 33	0 33	0 33	0 33
Alpha Bkgd (cpm)	0 1	0 1	0 1	0.3
Sample Time (min)	2	2	2	2
Bkgd Time (min)	10	10	10	10
MDC (dpm/100cm^2)	7 0	8 0	4 5	7 0

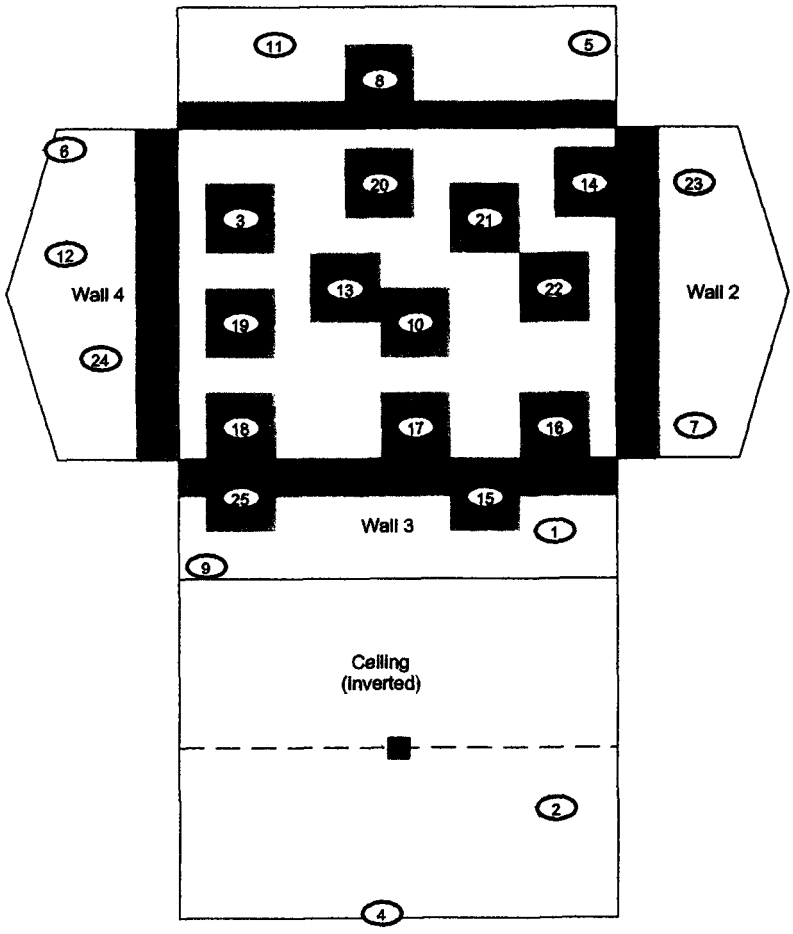
Sample Location Number	Instrument ID#	Gross Counts (cpm)	Net Activity (dpm/100 cm^2)
1	3	1 0	1 2
2	4	0 0	0 3
3	5	0 0	0 3
4	6	0 0	-0 3
5	3	1 0	1 5
6	4	2 0	2 7
7	5	0 0	0 3
8	3	1 0	1 5
9	4	0 0	0 3
10	5	0 0	0 3
11	6	0 0	-0 3
12	3	0 0	0 0
13	4	0 0	0 3
14	5	0 0	0 3
15	6	1 0	1 2
16	3	1 0	1 5
17	4	0 0	0 3
18	5	0 0	-0 3
19	6	1 0	1 2
20	3	0 0	0 0
21	4	0 0	-0 3
22	5	0 0	-0 3
23	6	1 0	1 2
24	3	2 0	3 0
25	4	0 0	-0 3
		MIN	-0 3
		MAX	3 0
		MEAN	0 4
		SD	1 0
		Transuranic DCGL$_W$	20

94

PRE-DEMOLITION SURVEY FOR BUILDING 553

Survey Area A **Survey Unit** B553-A-001 **Classification** 3
Building 553
Survey Unit Description Interior of Building
Total Area 409 sq m **Floor Area** 119 sq m

553 Interior



Scan Area

SURVEY MAP LEGEND
- Smear & TSA Location
- Smear, TSA & Sample Location
- Open/Inaccessible Area
- Area in Another Survey Unit

N

0 FEET 25
0 METERS 8

1 inch = 18 feet 1 grid sq = 1 sq m

Scan Survey Information
Survey Instrument ID #(s) 1, 2
RCT ID #(s) 1, 2

U S Department of Energy
Rocky Flats Environmental Technology Site

Prepared by GIS Dept 303-966-7707 Prepared for

DynCorp
THE ART OF TECHNOLOGY

MAP ID 02-0589/553-INSC Sept 26, 2002

ATTACHMENT C-6

Survey Unit B553-B-002

Radiological Data Summaries and Survey Maps

SURVEY UNIT B553-B-002
RADIOLOGICAL DATA SUMMARY - PDS

Survey Unit Description: B553 (Exterior)

97

B553-B-002
PDS Data Summary

Total Surface Activity Measurements

	20 Number Required	20 Number Obtained	
MIN	0 0		dpm/100 cm^2
MAX	88 4		dpm/100 cm^2
MEAN	38 5		dpm/100 cm^2
STD DEV	22 7		dpm/100 cm^2
TRANSURANIC DCGL$_W$	100		dpm/100 cm^2

Removable Activity Measurements

	20 Number Required	20 Number Obtained	
MIN	-0 3		dpm/100 cm^2
MAX	3 0		dpm/100 cm^2
MEAN	1 0		dpm/100 cm^2
STD DEV	1 2		dpm/100 cm^2
TRANSURANIC DCGL$_W$	20		dpm/100 cm^2

98

SURVEY UNIT B553-B-002
TSA - DATA SUMMARY

Manufacturer	NE Tech	NE Tech	NE Tech
Model	DP 6	DP 6	DP 6
Instrument ID#	1	2	7
Serial #	1250	2344	2352
Cal Due Date	10/10/02	1/17/03	2/7/03
Analysis Date	8/22/02	8/22/02	9/6/02
Alpha Eff (c/d)	0 213	0 222	0 238
Alpha Bkgd (cpm)	1 0	1 0	2 0
Sample Time (min)	1 5	1 5	1 5
LAB Time (min)	1 5	1 5	1 5
MDC (dpm/100cm^2)	48 0	48 0	48 0

Sample Location Number	Instrument ID#[1]	Sample Gross Counts (cpm)	Sample Gross Activity (dpm/100cm2)	LAB Gross Counts (cpm)	LAB Gross Activity (dpm/100cm2)	Sample Net Activity (dpm/100cm2)[1,2]
1	7	20 7	87 0	3 3	13 9	77 5
2	7	27 3	114 7	1 3	5 5	0 0
3	1	4	18 8	4 7	22 1	9 3
4	1	8	37 6	4	18 8	28 0
5	2	11 3	50 9	0	0 0	41 4
6	2	11 3	50 9	1 3	5 9	41 4
7	7	21 3	89 5	1 3	5 5	80 0
8	2	8	36 0	0	0 0	26 5
9	2	4 7	21 2	1 3	5 9	11 7
10	2	12	54 1	0 7	3 2	44 5
11	2	10 7	48 2	0	0 0	38 7
12	2	13 3	59 9	2	9 0	50 4
13	2	7 3	32 9	0	0 0	23 4
14	7	23 3	97 9	2 7	11 3	88 4
15	1	10 7	50 2	0 7	3 3	40 7
16	1	6 7	31 5	2	9 4	21 9
17	2	8 7	39 2	6	27 0	29 7
18	2	11 3	50 9	2 7	12 2	41 4
19	1	10	46 9	3 3	15 5	37 4
20	1	10	46 9	4 7	22 1	37 4

9 5	Sample LAB Average
MIN	0 0
MAX	88 4
MEAN	38 5
SD	22 7
Transuranic DCGL$_W$	100

1 Average LAB used to subtract from Gross Sample Activity

2 The initial Sample Net Activity for location 2 was 105 2 dpm/100cm^2

A roof coupon sample was collected and analyzed using the Canberra ISOCS system No transuranic isotopes were detected Exposed roof activity was determined to be from uranium and naturally occuring isotopes

The Sample Net Activity for this location is below the uranium DCGL$_W$ limits (5000 dpm/100cm2)

All survey results are less than the applicable DCGLs therefore no further investigation is required

On this basis the transuranic value for locations 2 is reported as zero (O) net activity in the TSA Data Summary

QC Measurements

18 QC	1	7 3	34 3	2 7	12 7	26 4
20 QC	2	15 3	68 9	0 7	3 2	61 0

7 9	QC LAB Average
Transuranic DCGL$_W$	100

1 Average QC LAB used to subtract from Gross Sample Activity

99

SURVEY UNIT B553-B-002
RSC - DATA SUMMARY

Manufacturer	Eberline	Eberline	Eberline	Eberline
Model	SAC-4	SAC-4	SAC-4	SAC-4
Instrument ID#	3	4	5	6
Serial #	824	851	963	952
Cal Due Date	10/1/02	10/29/02	1/3/03	1/31/03
Analysis Date	8/22/02	8/22/02	8/22/02	8/22/02
Alpha Eff (c/d)	0 33	0 33	0 33	0 33
Alpha Bkgd (cpm)	0 1	0 1	0 1	0 3
Sample Time (min)	2	2	2	2
Bkgd Time (min)	10	10	10	10
MDC (dpm/100cm^2)	7 0	8 0	4 5	7 0

Sample Location Number	Instrument ID#	Gross Counts (cpm)	Net Activity (dpm/100 cm^2)
1	9	1 0	1 5
2	11	0 0	0 0
3	5	2 0	2 7
4	6	2 0	2 7
5	3	0 0	0 0
6	4	0 0	-0 3
7	10	2 0	3 0
8	5	0 0	-0 3
9	6	1 0	1 2
10	3	1 0	1 5
11	4	0 0	-0 3
12	5	1 0	1 2
13	6	1 0	1 2
14	8	0 0	0 0
15	3	0 0	0 0
16	4	0 0	-0 3
17	5	1 0	1 2
18	6	1 0	1 2
19	3	0 0	0 0
20	4	2 0	2 7
		MIN	-0 3
		MAX	3 0
		MEAN	1 0
		SD	1 2
		Transuranic DCGL$_W$	**20**

100

CANBERRA

Analysis Results Header 9/24/2002 1 38 04 PM Page 1

```
*************************************************************************
*****       G A M M A   S P E C T R U M   A N A L Y S I S         *****
** C a n b e r r a  M o b i l e  L a b o r a t o r y  S e r v i c e s **
*************************************************************************
```

Report Generated On	9/24/2002 1 38 04 PM
RIN Number	02S0246
Analytical Batch ID	0209234732
Line Item Code	RC10B019
Filename A \G1900064 CNF	
Sample Number	02S0246-006 001
Lab Sample Number	CMLS1728
Sample Receipt Date	9/23/2002
Sample Volume Received	2 37E+002 GRAM
Result Identifier	NA
Peak Locate Threshold	2 50
Peak Locate Range (in channels)	100 - 8192
Peak Area Range (in channels)	100 - 8192
Identification Energy Tolerance	1 000 keV
Sample (Final Aliquot Size)	2 370E+002 GRAM
Sample Quantity Error	0 000E+000
Systematic Error Applied	0 000E+000
Sample Taken On	9/20/2002 2 40 00 PM
Acquisition Started	9/24/2002 9 34 13 AM
Count Time	3600 0 seconds
Real Time	3603 0 seconds
Dead Time	0 08 %

BSS 3
Trans to Rec?
Sample

Energy Calibration Used Done On 7/01/02
Energy = -0 102 + 0 250*ch + -3 87E-008*ch^2 + 2 95E-012*ch^3

Corrections Applied
None

Efficiency Calibration Used Done On 9/24/02
Efficiency Geometry ID 02S0246-006 001

Analyzed By Doug Scott Date 9/24/02

Reviewed By Phil Sanderson Date 9/24/02

CANBERRA

Sample and QC Sample Results Summary 9/24/02 1 38 04 PM Page 2

****
***** Sample and QC Sample Results Summary *****
****

Site Sample ID 02S0246-006 001

Analytical Batch ID 0209234732

Sample Type (Result Identifier) G19

Lab Sample Number CMLS1728

Geometry ID 02S0246-006 001

Filename A \G1900064 CNF

Detector Name BEGE4732

MDA = Curie method as specified in Genie-2000 Customization Tools Manual Appendix B, Basic Algorithms

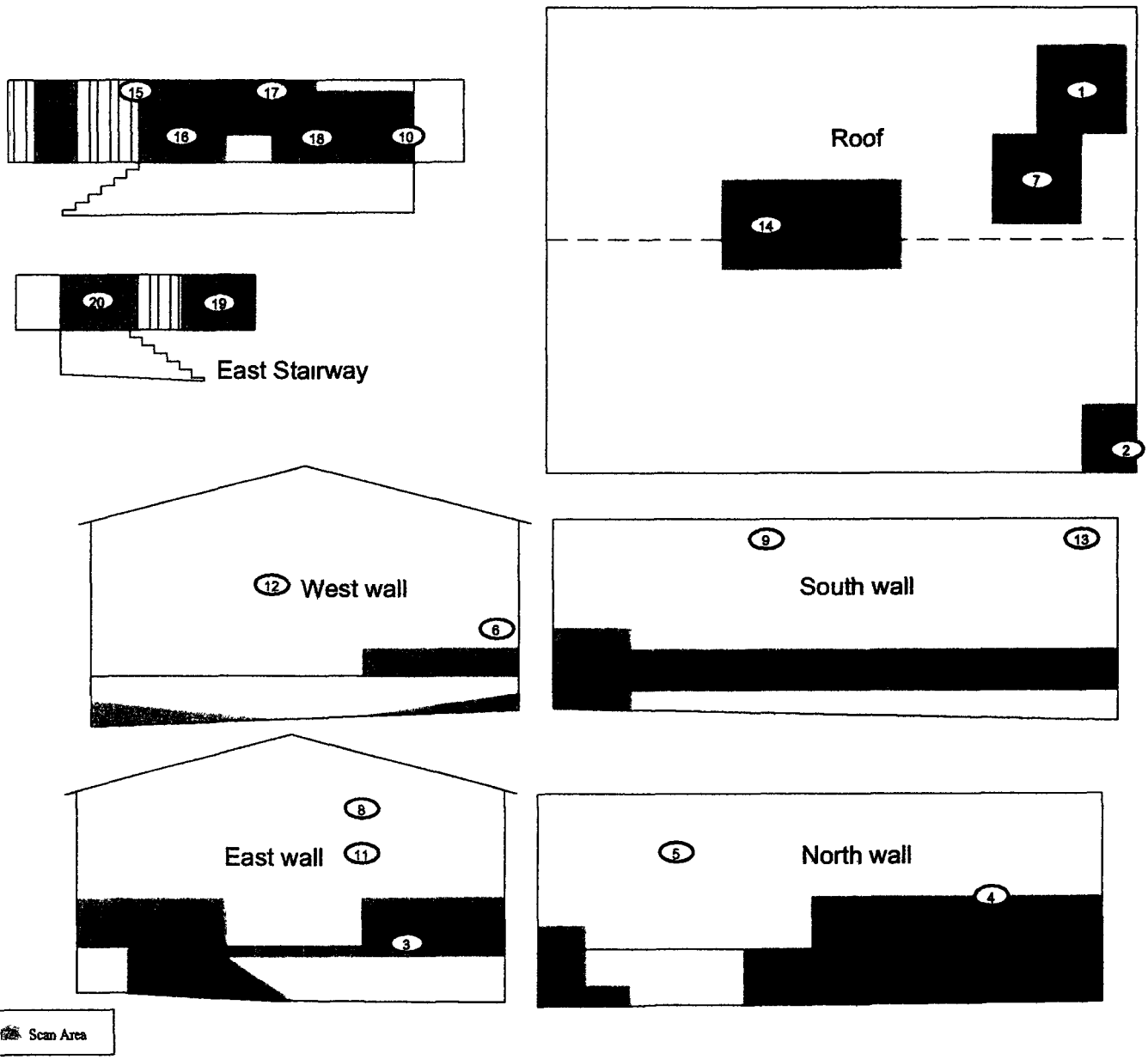
Analyte	Activity (pCi/GRAM)	2-Sigma Uncertainty (pCi/GRAM)	MDA (pCi/GRAM)
K-40	1 59E+000	9 92E-001	1 05E+000
CS-137	0 00E+000	0 00E+000	1 31E-001
TL-208	8 91E-002	4 55E-002	6 75E-002
PO-210	0 00E+000	0 00E+000	1 04E+004
BI-212	0 00E+000	0 00E+000	1 66E+000
PB-212	2 63E-001	5 40E-002	9 17E-002
BI-214	9 25E-001	2 06E-001	3 51E-001
PB-214	8 91E-001	1 19E-001	1 73E-001
RA-226	3 13E+000	9 43E-001	1 39E+000
AC-228	0 00E+000	0 00E+000	4 82E-001
TH-230	0 00E+000	0 00E+000	1 03E+001
Th-231	0 00E+000	0 00E+000	5 45E-001
PA-234	0 00E+000	0 00E+000	1 26E-001
PA-234M	0 00E+000	0 00E+000	1 40E+001
U-235	1 94E-001	5 78E-002	8 61E-002
U238/234	1 05E+000	7 71E-001	5 58E-001
AM-241	0 00E+000	0 00E+000	1 03E-001

102

PRE-DEMOLITION SURVEY FOR BUILDING 553

Survey Area A **Survey Unit B553-B-002** **Classification 3**
Building. 553
Survey Unit Description Exterior of Building
Total Area 372 sq m **Roof Area 136 sq m**

553 Exterior



SURVEY MAP LEGEND
- Smear & TSA Location
- Smear TSA & Sample Location
- Open/Inaccessible Area
- Area in Another Survey Unit

N

0 FEET 15
0 METERS 5

1 inch = 12 feet 1 grid sq = 1 sq m

Scan Survey Information
Survey Instrument ID #(s) 1, 2, 7
RCT ID #(s) 1, 2, 3

U S Department of Energy
Rocky Flats Environmental Technology Site

Prepared by GIS Dept 303-966 7707

DynCorp
THE ART OF TECHNOLOGY

Prepared for

MAP ID 02-0589/553-EXSC

Sept 26, 2002

ATTACHMENT C-7

Survey Unit T371-A-001

Radiological Data Summaries and Survey Maps

SURVEY UNIT T371-A-001
RADIOLOGICAL DATA SUMMARY - PDS

Survey Unit Description: B367 (Interior & Exterior)

105

T371-A-001
PDS Data Summary

Total Surface Activity Measurements

	17 Number Required	17 Number Obtained	
MIN	3 4		dpm/100 cm^2
MAX	83 9		dpm/100 cm^2
MEAN	27 7		dpm/100 cm^2
STD DEV	29 6		dpm/100 cm^2
TRANSURANIC DCGL$_W$	100		dpm/100 cm^2

Removable Activity Measurements

	17 Number Required	17 Number Obtained	
MIN	1 2		dpm/100 cm^2
MAX	5 5		dpm/100 cm^2
MEAN	0 8		dpm/100 cm^2
STD DEV	2 0		dpm/100 cm^2
TRANSURANIC DCGL$_W$	20		dpm/100 cm^2

SURVEY UNIT T371-A-001
TSA - DATA SUMMARY

Manufacturer	NE Tech	NE Tech	NE Tech	N E Tech	N E Tech
Model	DP 6	DP-6	DP 6	AP-6	DP-6
Instrument ID#	1	2	3	4	9
Serial #	396	1250	1366	1260	3114
Cal Due Date	1/12/03	10/10/02	2/1/03	2/21/03	3/5/03
Analysis Date	9/5/02	9/5/02	9/5/02	9/5/02	9/16/02
Alpha Eff (c/d)	0 234	0 213	0 204	0 219	0 222
Alpha Bkgd (cpm)	3 3	1 3	3 3	4 7	2 0
Sample Time (min)	1 5	1 5	1 5	1 5	1 5
LAB Time (min)	1 5	1 5	1 5	1 5	1 5
MDC (dpm/100cm^2)	48 0	48 0	48 0	48 0	48 0

Sample Location Number	Instrument ID#	Sample Gross Counts (cpm)	Sample Gross Activity (dpm/100cm2)	LAB Gross Counts (cpm)	LAB Gross Activity (dpm/100cm2)	Sample Net Activity (dpm/100cm2)[1,2]
1	2	11 3	53 1	2	9 4	39 8
2	1	14 7	62 8	1 3	5 6	49 6
3	3	2	9 8	5 3	26 0	3 4
4	2	6 7	31 5	1 3	6 1	18 2
5	3	2	9 8	4	19 6	3 4
6	1	20 7	88 5	3 3	14 1	75 2
7	2	6 7	31 5	2	9 4	18 2
8	2	12	56 3	1 3	6 1	43 1
9	2	20 7	97 2	4 3	20 2	83 9
10	3	2	9 8	4 7	23 0	3 4
11	2	11 3	53 1	4 7	22 1	39 8
12	3	10	49 0	1 3	6 4	35 8
13	1	19 3	82 5	3 3	14 1	69 2
14	9	36	162 2	4	18 0	0 0
15	3	25 7	126 0	2	9 8	0 0
16	2	2 7	12 7	1 3	6 1	0 6
17	2	4 7	22 1	2	9 4	8 8

13 3	Sample LAB Average
MIN	3 4
MAX	83 9
MEAN	27 7
SD	29 6
Transuranic DCGL$_W$	100

1 Average LAB used to subtract from Gross Sample Activity

2 The initial Sample Net Activity for locations 14 and 15 were 148 9 and 112 7 dpm/100cm^2 respectively
Coupon samples were collected and analyzed using the Canberra ISOCS system No transuranic
isotopes were detected Exposed metal sample activity was determined to be from uranium and naturally occuring isotopes
The Sample Net Activity for each of these locations is below the uranium DCGL$_W$ limits (5000 dpm/100cm2)
All survey results are less than the applicable DCGLs therefore no further investigation is required
On this basis transuranic values for locations 13 and 14 are reported as zero (0) net activity in the TSA Data Summary

QC Measurements

8 QC	1	21 5	91 9	2 4	10 3	82 1
2 QC	2	20 0	93 9	2 0	9 4	84 1

9 8	QC LAB Average
Transuranic DCGL$_W$	100

1 Average QC LAB used to subtract from Gross Sample Activity

107

SURVEY UNIT T371-A-001
RSC - DATA SUMMARY

Manufacturer	Eberline	Eberline	Eberline	Eberline
Model	SAC-4	SAC-4	SAC-4	SAC-4
Instrument ID#	5	6	7	8
Serial #	824	851	963	**952**
Cal Due Date	10/1/02	10/29/02	1/3/03	**1/31/03**
Analysis Date	9/5/02	9/5/02	9/5/02	**9/5/02**
Alpha Eff. (c/d)	0 33	0 33	0 33	**0.33**
Alpha Bkgd (cpm)	0 2	0 3	0 4	**0.2**
Sample Time (min)	2	2	2	**2**
Bkgd Time (min)	10	10	10	**10**
MDC (dpm/100cm^2)	7 0	8 0	4 5	**7.0**

Sample Location Number	Instrument ID#	Gross Counts (cpm)	Net Activity (dpm/100 cm^2)
1	7	0 0	-0 9
2	8	0 0	-1 2
3	5	2 0	3 0
4	6	3 0	3 9
5	7	0 0	-0 9
6	8	0 0	-1 2
7	5	0 0	0 0
8	6	4 0	5 5
9	7	1 0	0 6
10	8	0 0	-1 2
11	5	1 0	1 5
12	6	0 0	-0 6
13	7	1 0	0 6
14	10	2 0	3 0
15	8	2 0	1 8
16	5	0 0	0 0
17	6	0 0	-0 6
		MIN	-1 2
		MAX	5 5
		MEAN	0 8
		SD	2 0
		Transuranic DCGL$_W$	**20**

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CANBERRA

Analysis Results Header 9/24/2002 1 36 27 PM Page 1

```
*************************************************************************
*****       G A M M A   S P E C T R U M   A N A L Y S I S         *****
** C a n b e r r a  M o b i l e  L a b o r a t o r y  S e r v i c e s **
*************************************************************************
```

Report Generated On 9/24/2002 1 36 27 PM

RIN Number 02S0246
Analytical Batch ID 0209234732
Line Item Code RC10B019

Metal Coupon Samples

Filename A \G1900063 CNF

Sample Number 02S02046-005 001
Lab Sample Number CMLS1727
Sample Receipt Date 9/23/2002
Sample Volume Received 3 71E+001 GRAM

Result Identifier NA

Peak Locate Threshold 2 50
Peak Locate Range (in channels) 100 - 8192
Peak Area Range (in channels) 100 - 8192
Identification Energy Tolerance 1 000 keV

Sample (Final Aliquot Size) 3 710E+001 GRAM
Sample Quantity Error 0 000E+000
Systematic Error Applied 0 000E+000

Sample Taken On 9/20/2002 2 00 00 PM
Acquisition Started 9/24/2002 7 29 01 AM

Count Time 7200 0 seconds
Real Time 7205 5 seconds
Dead Time 0 08 %

Energy Calibration Used Done On 7/01/02
Energy = -0 102 + 0 250*ch + -3 87E-008*ch^2 + 2 95E-012*ch^3

Corrections Applied
None

Efficiency Calibration Used Done On 9/24/02
Efficiency Geometry ID 02S0246-005 001

Analyzed By Doug Scott Date 9/24/02

Reviewed By Phil Sanderson Date 9/24/02

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****
***** Sample and QC Sample Results Summary *****
****

Site Sample ID 02S02046-005 001

Analytical Batch ID 0209234732

Sample Type (Result Identifier) G19

Lab Sample Number CMLS1727

Geometry ID 02S0246-005 001

Filename A \G1900063 CNF

Detector Name BEGE4732

MDA = Curie method as specified in Genie-2000 Customization Tools Manual Appendix B, Basic Algorithms

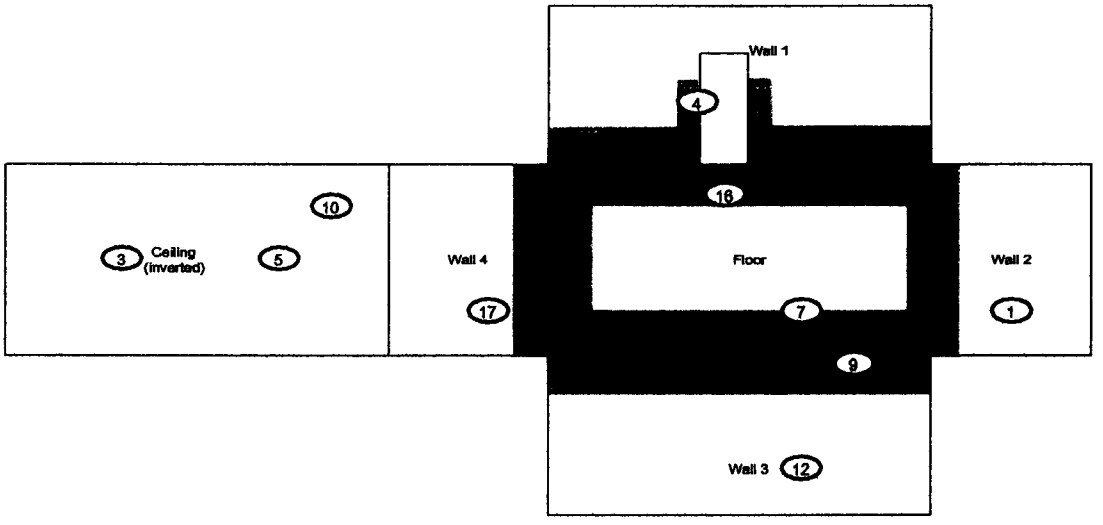
Analyte	Activity (pCi/GRAM)	2-Sigma Uncertainty (pCi/GRAM)	MDA (pCi/GRAM)
K-40	9 41E+000	2 39E+000	3 11E+000
CS-137	0 00E+000	0 00E+000	1 98E-001
TL-208	1 34E-001	9 03E-002	1 45E-001
PO-210	0 00E+000	0 00E+000	1 82E+004
BI-212	0 00E+000	0 00E+000	2 64E+000
PB-212	1 69E-001	1 01E-001	1 62E-001
BI-214	0 00E+000	0 00E+000	3 79E-001
PB-214	0 00E+000	0 00E+000	3 19E-001
RA-226	0 00E+000	0 00E+000	2 23E+000
AC-228	0 00E+000	0 00E+000	7 76E-001
TH-230	0 00E+000	0 00E+000	2 18E+001
Th-231	0 00E+000	0 00E+000	9 75E-001
PA-234	0 00E+000	0 00E+000	2 14E-001
PA-234M	0 00E+000	0 00E+000	2 29E+001
U-235	1 90E-001	8 65E-002	1 38E-001
U238/234	2 04E+000	6 38E-001	9 19E-001
AM-241	0 00E+000	0 00E+000	2 92E-001

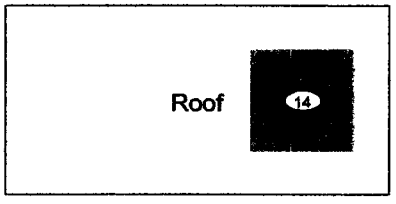
PRE-DEMOLITION SURVEY FOR B367 CLUSTER

Survey Area 3 **Survey Unit** T371-A-001 **Classification** 3
Building 367
Survey Unit Description Interior & Exterior **Total Roof Area** 27 sq m
Total Area 214 sq m **Total Floor Area** 27 sq m

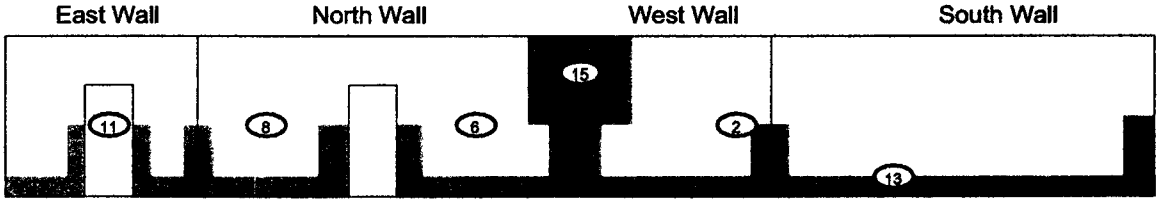
Building 367

Interior





Exterior



Scan Area

SURVEY MAP LEGEND

- Smear & TSA Location
- Smear TSA & Sample Location
- Open/Inaccessible Area
- Area in Another Survey Unit

N

0 FEET 15
0 METERS 5

1 inch = 12 feet 1 grid sq = 1 sq m.

Scan Survey Information
Survey Instrument ID #(s) 9
RCT ID #(s) 4

U S Department of Energy
Rocky Flats Environmental Technology Site

Prepared by GIS Dept 303-966 7707

DynCorp
THE ART OF TECHNOLOGY

Prepared for

MAP ID 02-0589/367SC

Sept 30, 2002

111

ATTACHMENT C-8

Survey Unit T371-A-002

Radiological Data Summaries and Survey Maps

SURVEY UNIT T371-A-002
RADIOLOGICAL DATA SUMMARY - PDS

Survey Unit Description. T371A (Interior & Exterior)

113

T371-A-002
PDS Data Summary

Total Surface Activity Measurements

	20 Number Required	20 Number Obtained	
MIN	10 8		dpm/100 cm^2
MAX	44 6		dpm/100 cm^2
MEAN	13 7		dpm/100 cm^2
STD DEV	20 0		dpm/100 cm^2
TRANSURANIC DCGL$_W$	100		dpm/100 cm^2

Removable Activity Measurements

	20 Number Required	20 Number Obtained	
MIN	1 2		dpm/100 cm^2
MAX	2 1		dpm/100 cm^2
MEAN	0 0		dpm/100 cm^2
STD DEV	1 0		dpm/100 cm^2
TRANSURANIC DCGL$_W$	20		dpm/100 cm^2

114

SURVEY UNIT T371-A-002
TSA - DATA SUMMARY

Manufacturer	NE Tech	NE Tech	NE Tech	NE Tech	NE Tech
Model	DP 6	DP 6	DP 6	DP 6	DP 6
Instrument ID#	1	2	3	8	9
Serial #	394	1250	1366	1250	396
Cal Due Date	1/12/03	10/10/02	2/1/03	10/10/02	1/12/03
Analysis Date	9/9/02	9/9/02	9/9/02	9/10/02	9/16/02
Alpha Eff (c/d)	0 226	0 213	0 204	0 213	0 239
Alpha Bkgd (cpm)	3 0	2 0	4 0	1 0	2 0
Sample Time (min)	1 5	1 5	1 5	1 5	1 5
LAB Time (min)	1 5	1 5	1 5	1 5	1 5
MDC (dpm/100cm^2)	48 0	48 0	48 0	48 0	48 0

Sample Location Number	Instrument ID#	Sample Gross Counts (cpm)	Sample Gross Activity (dpm/100cm2)	LAB Gross Counts (cpm)	LAB Gross Activity (dpm/100cm2)	Sample Net Activity (dpm/100cm2)[1,2]
1	9	14 7	61 5	4	16 7	44 6
2	3	10	49 0	5 3	26 0	32 2
3	2	4	18 8	2	9 4	1 9
4	1	4	17 7	6	26 5	0 8
5	1	6	26 5	2 7	11 9	9 7
6	1	6 7	29 6	6 7	29 6	12 8
7	2	2 7	12 7	1	4 7	4 2
8	1	10 7	47 3	6	26 5	30 5
9	9	14	58 6	4	16 7	41 7
10	1	5 3	23 5	6 7	29 6	6 6
11	3	10	49 0	3 3	16 2	32 2
12	3	6	29 4	2 7	13 2	12 6
13	9	14	58 6	0	0 0	41 7
14	9	14 7	61 5	8	33 5	44 6
15	1	2 7	11 9	7 3	32 3	-4 9
16	2	1 3	6 1	0 7	3 3	10 8
17	2	4	18 8	0 7	3 3	1 9
18	8	1 3	6 1	3 3	15 5	10 8
19	8	4	18 8	2 7	12 7	1 9
20	8	1 3	6 1	2	9 4	10 8
					16 9	Sample LAB Average
					MIN	10 8
					MAX	44 6
					MEAN	13 7
					SD	20 0
					Transuranic $DCGL_W$	100

1 Average LAB used to subtract from Gross Sample Activity

QC Measurements

8 QC	2	2 7	12 7	0 7	3 3	2 0
5 QC	3	3 3	16 2	5 3	26 0	1 5
					14 6	QC LAB Average
					Transuranic $DCGL_W$	100

1 Average QC LAB used to subtract from Gross Sample Activity

115

SURVEY UNIT T371-A-002
RSC - DATA SUMMARY

Manufacturer	Eberline	Eberline	Eberline	Eberline
Model	SAC-4	SAC 4	SAC 4	SAC-4
Instrument ID#	4	5	6	7
Serial #	824	851	963	952
Cal Due Date	10/1/02	10/29/02	1/3/03	1/31/03
Analysis Date	9/9/02	9/9/02	9/9/02	9/9/02
Alpha Eff (c/d)	0 33	0 33	0 33	0 33
Alpha Bkgd (cpm)	0 1	0 4	0 1	0 2
Sample Time (min)	2	2	2	2
Bkgd Time (min)	10	10	10	10
MDC (dpm/100cm^2)	9 0	9 0	9 0	9 0

Manufacturer	Eberline	Eberline	Eberline
Model	SAC-4	SAC-4	SAC-4
Instrument ID#	10	11	12
Serial #	824	966	963
Cal Due Date	10/1/02	11/6/02	1/3/03
Analysis Date	9/16/02	9/16/02	9/16/02
Alpha Eff (c/d)	0 33	0 33	0 33
Alpha Bkgd (cpm)	0 2	0 4	0 3
Sample Time (min)	2	2	2
Bkgd Time (min)	10	10	10
MDC (dpm/100cm^2)	9 0	9 0	9 0

Sample Location Number	Instrument ID#	Gross Counts (cpm)	Net Activity (dpm/100 cm^2)
1	10	0 0	-0 6
2	4	0 0	-0 3
3	5	0 0	1 2
4	6	0 0	-0 3
5	7	1 0	0 9
6	4	0 0	-0 3
7	5	0 0	-1 2
8	6	1 0	1 2
9	11	0 0	-1 2
10	7	0 0	0 6
11	4	1 0	1 2
12	5	0 0	-1 2
13	12	1 0	0 6
14	10	0 0	0 0
15	6	0 0	-0 3
16	7	0 0	-0 6
17	4	1 0	1 2
18	10	1 0	0 9
19	11	1 0	0 3
20	12	2 0	2 1
		MIN	-1 2
		MAX	2 1
		MEAN	0 0
		SD	1 0
		Transuranic DCGL$_W$	20

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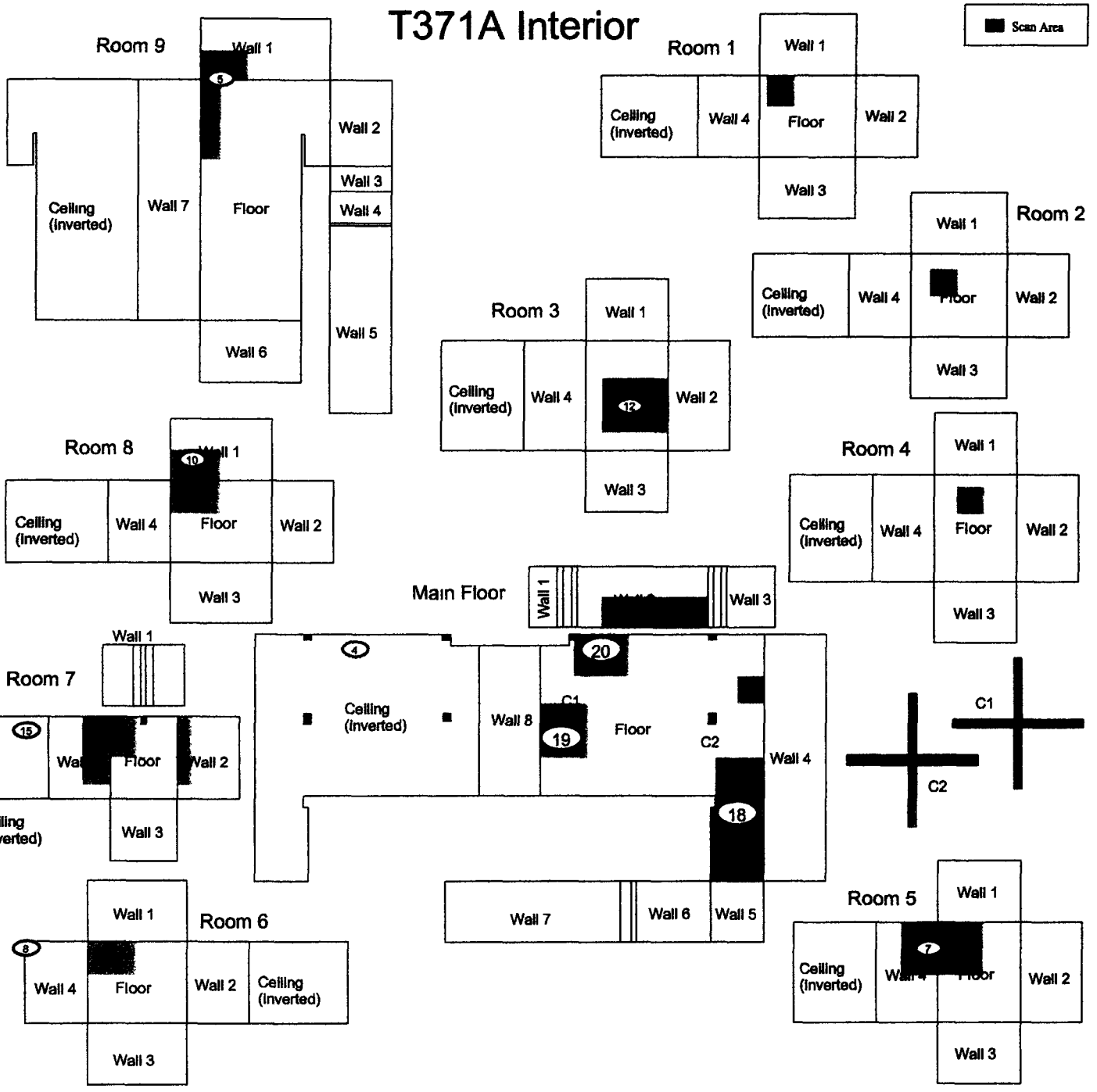
PRE-DEMOLITION SURVEY FOR T371A CLUSTER

Survey Area 3 **Survey Unit T371-A-002** **Classification 3**
Building T371A
Survey Unit Description Interior & Exterior of Building
Total Area 1237 sq m **Total Roof Area 206 sq m**
Total FloorArea 177 sq m



SURVEY MAP LEGEND

- Smear & TSA Location
- Smear, TSA & Sample Location
- Open/Inaccessible Area
- Area in Another Survey Unit

N

0 FEET 25
0 METERS 8

1 inch = 18 feet 1 grid sq = 1 sq m

Scan Survey Information
Survey Instrument ID #(s) 8, 2
RCT ID #(s) 2, 3

U S Department of Energy
Rocky Flats Environmental Technology Site

Prepared by GIS Dept 303-966 7707

DynCorp
THE ART OF TECHNOLOGY

Prepared for

MAP ID 02-0589/T371A-INSC Sept 30, 2002

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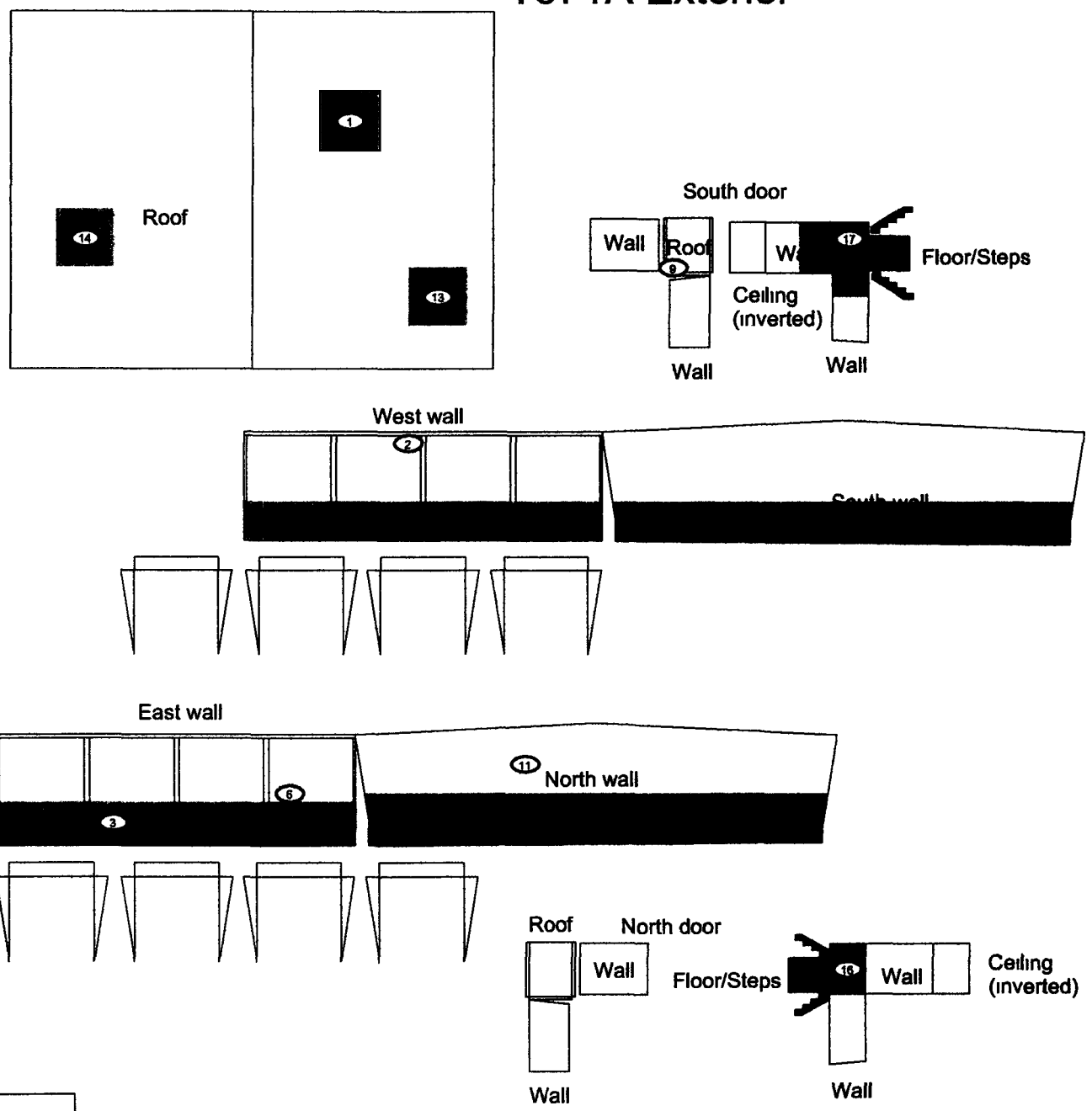
PRE-DEMOLITION SURVEY FOR T371A CLUSTER

Survey Area 3 **Survey Unit. T371-A-002** **Classification 3**
Building T371A
Survey Unit Description Interior & Exterior of Building
Total Area 1237 sq m **Total Roof Area 206 sq m**
Total FloorArea 177 sq m

T371A Exterior



SURVEY MAP LEGEND

- Smear & TSA Location
- Smear, TSA & Sample Location
- Open/Inaccessible Area
- Area m Another Survey Unit

N

0 FEET 25
0 METERS 8

1 inch = 18 feet 1 grid sq = 1 sq m

Scan Survey Information
Survey Instrument ID #(s) 8, 2
RCT ID #(s) 2, 3

U S Department of Energy
Rocky Flats Environmental Technology Site

Prepared by GIS Dept 303-966 7707 Prepared for:

DynCorp
THE ART OF TECHNOLOGY

MAP ID 02-0589/T371A-EXSC Sept 30, 2002

ATTACHMENT C-9

Survey Unit T371-A-003

Radiological Data Summaries and Survey Maps

SURVEY UNIT T371-A-003
RADIOLOGICAL DATA SUMMARY - PDS

Survey Unit Description T371D & E (Interior & Exterior)

120

Total Surface Activity Measurements

	20 Number Required	20 Number Obtained	
MIN	-12 2		dpm/100 cm^2
MAX	30 2		dpm/100 cm^2
MEAN	8 1		dpm/100 cm^2
STD DEV	13 3		dpm/100 cm^2
TRANSURANIC DCGL$_W$	100		dpm/100 cm^2

Removable Activity Measurements

	20 Number Required	20 Number Obtained	
MIN	-1 2		dpm/100 cm^2
MAX	4 8		dpm/100 cm^2
MEAN	0 1		dpm/100 cm^2
STD DEV	1 5		dpm/100 cm^2
TRANSURANIC DCGL$_W$	20		dpm/100 cm^2

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SURVEY UNIT T371-A-003
TSA - DATA SUMMARY

Manufacturer	NE Tech	NE Tech	NE Tech	N E. Tech	N E. Tech
Model	DP 6	DP 6	DP 6	AP 6	DP-6
Instrument ID#	1	2	3	4	5
Serial #	1366	396	2343	1250	1260
Cal Due Date	2/1/03	1/12/03	10/2/02	10/10/02	2/21/03
Analysis Date	9/5/02	9/5/02	9/5/02	9/5/02	9/5/02
Alpha Eff (c/d)	0 204	0 234	0 223	0 213	0 219
Alpha Bkgd (cpm)	3 3	3 3	0 0	1 3	4 7
Sample Time (min)	1 5	1 5	1 5	1 5	1 5
LAB Time (min)	1 5	1 5	1 5	1 5	1 5
MDC (dpm/100cm^2)	48 0	48 0	48 0	48 0	48 0

Sample Location Number	Instrument ID#	Sample Gross Counts (cpm)	Sample Gross Activity (dpm/100cm2)	LAB Gross Counts (cpm)	LAB Gross Activity (dpm/100cm2)	Sample Net Activity (dpm/100cm2)[1,2]
1	2	3 3	14 1	1 3	5 6	1 3
2	1	6 7	32 8	5 3	26 0	17 5
3	2	8 1	34 6	1 3	5 6	19 2
4	1	9 3	45 6	5 3	26 0	30 2
5	1	4 0	19 6	3 3	16 2	4 2
6	3	0 7	3 1	1 3	5 8	12 2
7	1	4 7	23 0	4 0	19 6	7 7
8	1	7 3	35 8	2 0	9 8	20 4
9	2	7 4	31 6	4 7	20 1	16 2
10	1	2 0	9 8	3 3	16 2	5 6
11	1	6 7	32 8	4 0	19 6	17 5
12	2	6 7	28 6	4 7	20 1	13 2
13	1	8 7	42 6	4 7	23 0	27 3
14	1	31 3	153 4	2 0	9 8	0 0
15	5	9 3	42 5	7 7	35 2	27 1
16	3	2 0	9 0	0 7	3 1	-6 4
17	3	1 3	5 8	0 7	3 1	9 6
18	2	4 0	17 1	1 3	5 6	1 7
19	3	2 0	9 0	3 3	14 8	6 4
20	2	4 0	17 1	5 3	22 6	1 7

15 4	Sample LAB Average
MIN	12 2
MAX	30 2
MEAN	8 1
SD	13 3
Transuranic DCGL$_W$	100

1 Average LAB used to subtract from Gross Sample Activity

2 The initial Sample Net Activity for location 14 was 138 0 dpm/100cm^2
A coupon sample was collected from location 14 and analyzed using the Canberra ISOCS system. No transuranic isotopes were detected. Exposed metal sample activity was determined to be from uranium and naturally occuring isotopes
The Sample Net Activity for this location is below the uranium DCGL$_W$ limits (5000 dpm/100cm2)
All survey results are less than the applicable DCGLs therefore, no further investigation is required.
On this basis the transuranic value for location 14 is reported as zero (0) net activity in the TSA Data Summary

QC Measurements

1 QC	3	1 3	5 8	2 1	9 4	3 4
18 QC	3	2 0	9 0	2 0	9 0	0 2

9 2	QC LAB Average
Transuranic DCGL$_W$	100

1 Average QC LAB used to subtract from Gross Sample Activity

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SURVEY UNIT T371-A-003
RSC - DATA SUMMARY

Manufacturer	Eberline	Eberline	Eberline	Eberline
Model	SAC-4	SAC-4	SAC-4	SAC-4
Instrument ID#	6	7	8	9
Serial #	824	851	963	952
Cal Due Date	10/1/02	10/29/02	1/3/03	1/31/03
Analysis Date	9/5/02	9/5/02	9/5/02	9/5/02
Alpha Eff (c/d)	0 33	0 33	0 33	0 33
Alpha Bkgd (cpm)	0 2	0 3	0 4	0 2
Sample Time (min)	2	2	2	2
Bkgd Time (min)	10	10	10	10
MDC (dpm/100cm^2)	7 0	8 0	4 5	7 0

Sample Location Number	Instrument ID#	Gross Counts (cpm)	Net Activity (dpm/100 cm^2)
1	8	0 0	-1 2
2	9	1 0	0 9
3	6	0 0	-0 6
4	7	0 0	-0 9
5	8	0 0	-1 2
6	9	1 0	0 9
7	6	0 0	-0 6
8	7	1 0	0 6
9	8	0 0	-1 2
10	9	0 0	-0 6
11	6	0 0	-0 6
12	7	0 0	-0 9
13	8	4 0	4 8
14	9	1 0	0 9
15	6	2 0	2 4
16	7	1 0	0 6
17	8	0 0	-1 2
18	9	0 0	-0 6
19	6	1 0	0 9
20	7	0 0	-0 9
		MIN	-1 2
		MAX	4 8
		MEAN	0 1
		SD	1 5
		Transuranic DCGL$_W$	20

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Analysis Results Header 11/25/2002 9 41 43 AM Page 1

****
***** GAMMA SPECTRUM ANALYSIS *****
** Canberra Mobile Laboratory Services **
****

Report Generated On 11/25/2002 9 41 43 AM

RIN Number 03S0006
Analytical Batch ID 0210044732
Line Item Code RC10B019

Metal Cayon
T371D
T371-A-003
Location 14

Filename C \CMLS\Miscellaneous Data\High Ra-226 State\G190

Sample Number 03S0006-001 001
Lab Sample Number CMLS-1761
Sample Receipt Date 10/4/2002
Sample Volume Received 4 40E+000 GRAM

Result Identifier N/A

Peak Locate Threshold 2 50
Peak Locate Range (in channels) 100 - 8192
Peak Area Range (in channels) 100 - 8192
Identification Energy Tolerance 1 000 keV

Sample (Final Aliquot Size) 4 400E+000 GRAM
Sample Quantity Error 0 000E+000
Systematic Error Applied 0 000E+000

Sample Taken On 10/3/2002 9 00 00 AM
Acquisition Started 10/4/2002 1 09 03 PM

Count Time 28800 0 seconds
Real Time 28822 2 seconds
Dead Time 0 08 %

Energy Calibration Used Done On 10/1/02
Energy = -0 204 + 0 250*ch + -5 33E-008*ch^2 + 5 11E-012*ch^3

Corrections Applied
None

Efficiency Calibration Used Done On 10/7/02
Efficiency Geometry ID 03S0006-001 001

Analyzed By Sean Stanfield Date 11/25/02

Reviewed By Marilyn Umbaugh Date 11/25/02

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****
***** Sample and QC Sample Results Summary *****
****

Site Sample ID 03S0006-001 001

Analytical Batch ID 0210044732

Sample Type (Result Identifier) G19

Lab Sample Number CMLS-1761

Geometry ID 03S0006-001 001

Filename C \CMLS\Miscellaneous Data\High Ra-226 State\G190

Detector Name BEGE4732

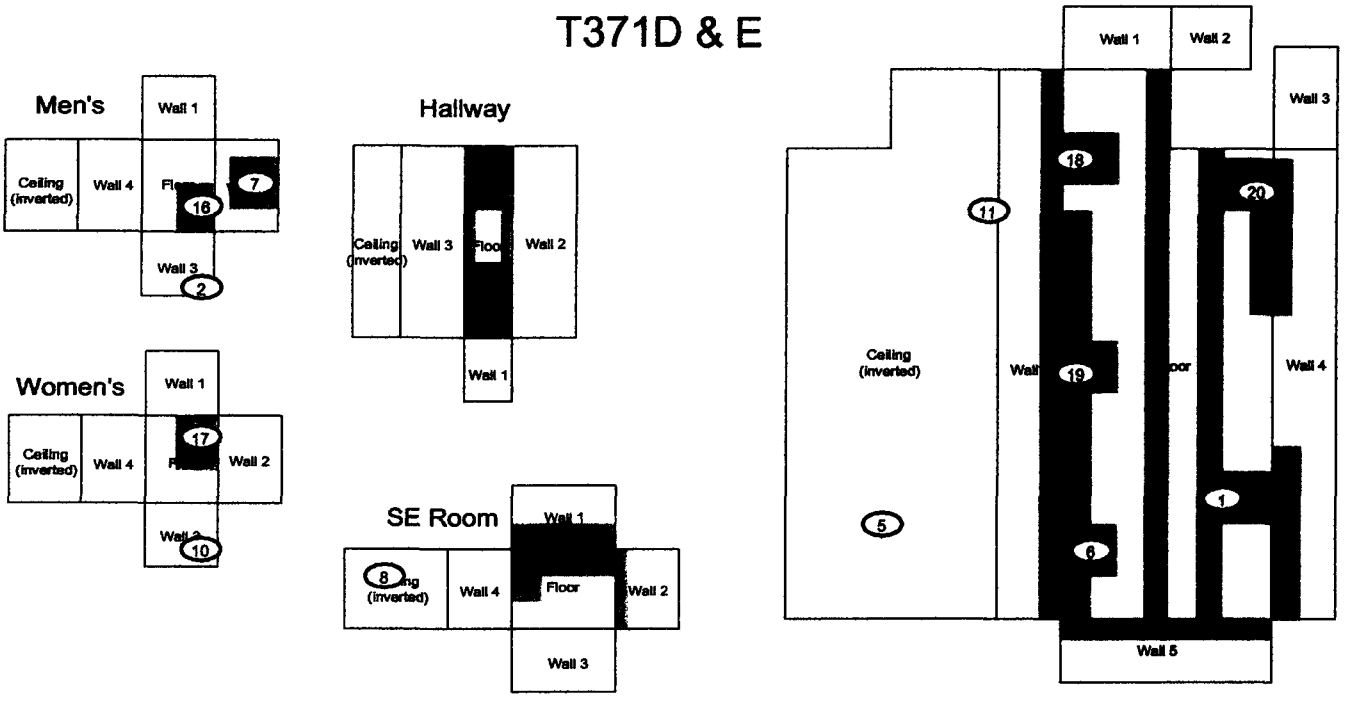
MDA = Curie method as specified in Genie-2000 Customization Tools Manual Appendix B, Basic Algorithms

Analyte	Activity (pCi/GRAM)	2-Sigma Uncertainty (pCi/GRAM)	MDA (pCi/GRAM)
K-40	0 00E+000	0 00E+000	2 06E+001
CS-137	0 00E+000	0 00E+000	1 06E+000
TL-208	9 27E-001	2 71E-001	6 03E-001
PO-210	0 00E+000	0 00E+000	9 91E+004
BI-212	0 00E+000	0 00E+000	1 44E+001
PB-212	1 15E+000	2 95E-001	6 35E-001
BI-214	9 78E-001	8 95E-001	1 50E+000
PB-214	0 00E+000	0 00E+000	1 57E+000
RA-226	0 00E+000	0 00E+000	6 15E+000
AC-228	0 00E+000	0 00E+000	4 22E+000
TH-230	0 00E+000	0 00E+000	5 15E+001
Th-231	1 25E+000	6 30E-001	1 85E+000
PA-234	0 00E+000	0 00E+000	7 49E-001
PA-234M	0 00E+000	0 00E+000	9 97E+001
U-235	5 23E-001	2 97E-001	3 81E-001
U238/234	6 92E+000	2 72E+000	3 14E+000
AM-241	0 00E+000	0 00E+000	4 46E-001

PRE-DEMOLITION SURVEY FOR T371D&E CLUSTER

Survey Area 3 **Survey Unit. T371-A-003** **Classification 3**
Building T371D&E
Survey Unit Description Interior & Exterior **Total Roof Area 227sq m**
Total Area 1225 sq m **Total Floor Area 213 sq m**

T371D & E



SURVEY MAP LEGEND

- Smear & TSA Location
- Smear, TSA & Sample Location
- Open/Inaccessible Area
- Area in Another Survey Unit

N

0 FEET 30
0 METERS 10

1 inch = 24 feet 1 grid sq = 1 sq m

Scan Survey Information
Survey Instrument ID #(s) 3, 4
RCT ID #(s) 2, 4

U S Department of Energy
Rocky Flats Envronmental Technology Site

Prepared by GIS Dept 303-966 7707

DynCorp
THE ART OF TECHNOLOGY

Prepared for

MAP ID. 02-0589/T371D-ESC October 7, 2002

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ATTACHMENT C-10

Survey Unit T371-A-004

Radiological Data Summaries and Survey Maps

SURVEY UNIT T371-A-004
RADIOLOGICAL DATA SUMMARY - PDS

Survey Unit Description: T371F (Interior & Exterior)

128

Total Surface Activity Measurements

	20 Number Required	20 Number Obtained	
MIN	-6 8		dpm/100 cm^2
MAX	30 1		dpm/100 cm^2
MEAN	7 3		dpm/100 cm^2
STD DEV	9 3		dpm/100 cm^2
TRANSURANIC DCGL$_W$	100		dpm/100 cm^2

Removable Activity Measurements

	20 Number Required	20 Number Obtained	
MIN	-1 2		dpm/100 cm^2
MAX	3 9		dpm/100 cm^2
MEAN	0 6		dpm/100 cm^2
STD DEV	1 6		dpm/100 cm^2
TRANSURANIC DCGL$_W$	20		dpm/100 cm^2

129

SURVEY UNIT T371-A-004
TSA - DATA SUMMARY

Manufacturer	NE Tech	NE Tech	NE Tech	NE Tech
Model	DP 6	DP 6	DP 6	DP 6
Instrument ID#	1	2	3	8
Serial #	1250	394	1366	396
Cal Due Date	10/10/02	1/12/03	2/1/03	1/12/03
Analysis Date	9/9/02	9/9/02	9/9/02	9/16/02
Alpha Eff (c/d)	0 213	0 226	0 204	0 239
Alpha Bkgd (cpm)	2 0	3 0	4 0	2 0
Sample Time (min)	1 5	1 5	1.5	1.5
LAB Time (min)	1 5	1 5	1.5	1 5
MDC (dpm/100cm^2)	48 0	48 0	48 0	48 0

Sample Location Number	Instrument ID#	Sample Gross Counts (cpm)	Sample Gross Activity (dpm/100cm2)	LAB Gross Counts (cpm)	LAB Gross Activity (dpm/100cm2)	Sample Net Activity (dpm/100cm2)[1,2]
1	1	5 3	24 9	2	9 4	12 3
2	1	5 3	24 9	0 7	3 3	12 3
3	3	3 3	16.2	1 3	6 4	3 6
4	8	37 3	156 1	4 7	19 7	0 0
5	2	2	8 8	0 7	3 1	3 7
6	8	57 3	239 7	0 7	2 9	0 0
7	3	4	19 6	5 8	28 4	7 0
8	1	4 7	22 1	4	18 8	9 5
9	1	5 3	24 9	1 3	6 1	12 3
10	1	8	37 6	4 7	22 1	25 0
11	2	3 3	14 6	4 7	20 8	2 0
12	8	28	117 2	6	25 1	0 0
13	3	8 7	42 6	0 7	3 4	30 1
14	1	3 3	15 5	4	18 8	2 9
15	3	2 7	13 2	2	9 8	0 7
16	3	4	19 6	4	19 6	7 0
17	1	5 3	24 9	1 3	6 1	12.3
18	2	3 3	14 6	0	0 0	2 0
19	2	1 3	5 8	4	17 7	6 8
20	3	6	29 4	2	9 8	16 8

12 6	Sample LAB Average
MIN	6 8
MAX	30 1
MEAN	7 3
SD	9 3
Transuranic DCGL$_W$	100

1 Average LAB used to subtract from Gross Sample Activity

2 The initial Sample Net Activity for locations 4 6 and 12 were 143 5 227 2 and 104 6 dpm/100cm^2 respectively
A metal roof coupon sample was collected and analyzed using the Canberra ISOCS system No transuranic isotopes were detected Exposed metal sample activity was determined to be from uranium and naturally occuring isotopes
The Sample Net Activity for each of these locations is below the uranium DCGL$_W$ limits (5000 dpm/100cm2)
All survey results are less than the applicable DCGLs therefore no further investigation is required
On this basis transuranic values for locations 4 6 and 12 are reported as zero (O) net activity in the TSA Data Summary

QC Measurements

3 QC	2	3 3	14 6	2 0	8 8	2 9
7 QC	2	2 0	8 8	3 3	14 6	2 9

11 7	QC LAB Average
Transuranic DCGL$_W$	100

1 Average QC LAB used to subtract from Gross Sample Activity

130

SURVEY UNIT T371-A-004
RSC - DATA SUMMARY

Manufacturer	Eberline	Eberline	Eberline	Eberline
Model	SAC-4	SAC-4	SAC-4	SAC-4
Instrument ID#	4	5	6	7
Serial #	824	851	963	952
Cal Due Date	10/1/02	10/29/02	1/3/03	1/31/03
Analysis Date	9/9/02	9/9/02	9/9/02	9/9/02
Alpha Eff (c/d)	0 33	0 33	0 33	0 33
Alpha Bkgd (cpm)	0 1	0 4	0 1	0 2
Sample Time (min)	2	2	2	2
Bkgd Time (min)	10	10	10	10
MDC (dpm/100cm^2)	9 0	9 0	9 0	9 0

Manufacturer	Eberline	Eberline	Eberline
Model	SAC-4	SAC-4	SAC-4
Instrument ID#	9	10	11
Serial #	824	966	963
Cal Due Date	10/1/02	11/6/02	1/3/03
Analysis Date	9/16/02	9/16/02	9/16/02
Alpha Eff (c/d)	0 33	0 33	0 33
Alpha Bkgd (cpm)	0 2	0 4	0 3
Sample Time (min)	2	2	2
Bkgd Time (min)	10	10	10
MDC (dpm/100cm^2)	9 0	9 0	9 0

Sample Location Number	Instrument ID#	Gross Counts (cpm)	Net Activity (dpm/100 cm^2)
1	4	2 0	2 7
2	5	1 0	0 3
3	6	0 0	0 3
4	9	3 0	3 9
5	7	0 0	-0 6
6	10	2 0	1 8
7	4	0 0	0 3
8	5	0 0	1 2
9	6	0 0	-0 3
10	7	2 0	2 4
11	4	0 0	-0 3
12	11	3 0	3 6
13	5	1 0	0 3
14	6	0 0	-0 3
15	7	0 0	-0 6
16	4	0 0	-0 3
17	5	0 0	-1 2
18	6	0 0	-0 3
19	7	2 0	2 4
20	4	0 0	0 3
		MIN	1 2
		MAX	3 9
		MEAN	0 6
		SD	1 6
		Transuranic $DCGL_W$	20

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****
***** GAMMA SPECTRUM ANALYSIS *****
** Canberra Mobile Laboratory Services **
****

Report Generated On 9/24/2002 1 36 27 PM

RIN Number 02S0246
Analytical Batch ID 0209234732
Line Item Code RC10B019

Metal Coupon Samples

Filename A \G1900063 CNF

T 371F, B 367, T 760A

Sample Number 02S02046-005 001
Lab Sample Number CMLS1727
Sample Receipt Date 9/23/2002
Sample Volume Received 3 71E+001 GRAM

Result Identifier NA

Peak Locate Threshold 2 50
Peak Locate Range (in channels) 100 - 8192
Peak Area Range (in channels) 100 - 8192
Identification Energy Tolerance 1 000 keV

Sample (Final Aliquot Size) 3 710E+001 GRAM
Sample Quantity Error 0 000E+000
Systematic Error Applied 0 000E+000

Sample Taken On 9/20/2002 2 00 00 PM
Acquisition Started 9/24/2002 7 29 01 AM

Count Time 7200 0 seconds
Real Time 7205 5 seconds
Dead Time 0 08 %

Energy Calibration Used Done On 7/01/02
Energy = -0 102 + 0 250*ch + -3 87E-008*ch^2 + 2 95E-012*ch^3

Corrections Applied
None

Efficiency Calibration Used Done On 9/24/02
Efficiency Geometry ID 02S0246-005 001

Analyzed By Doug Scott Date 9/24/02

Reviewed By Phil Sanderson Date 9/24/02

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CANBERRA

Sample and QC Sample Results Summary 9/24/02 1 36 27 PM Page 2

****
***** Sample and QC Sample Results Summary *****
****

Site Sample ID 02S02046-005 001

Analytical Batch ID 0209234732

Sample Type (Result Identifier) G19

Lab Sample Number CMLS1727

Geometry ID 02S0246-005 001

Filename A \G1900063 CNF

Detector Name BEGE4732

MDA = Curie method as specified in Genie-2000 Customization Tools Manual Appendix B, Basic Algorithms

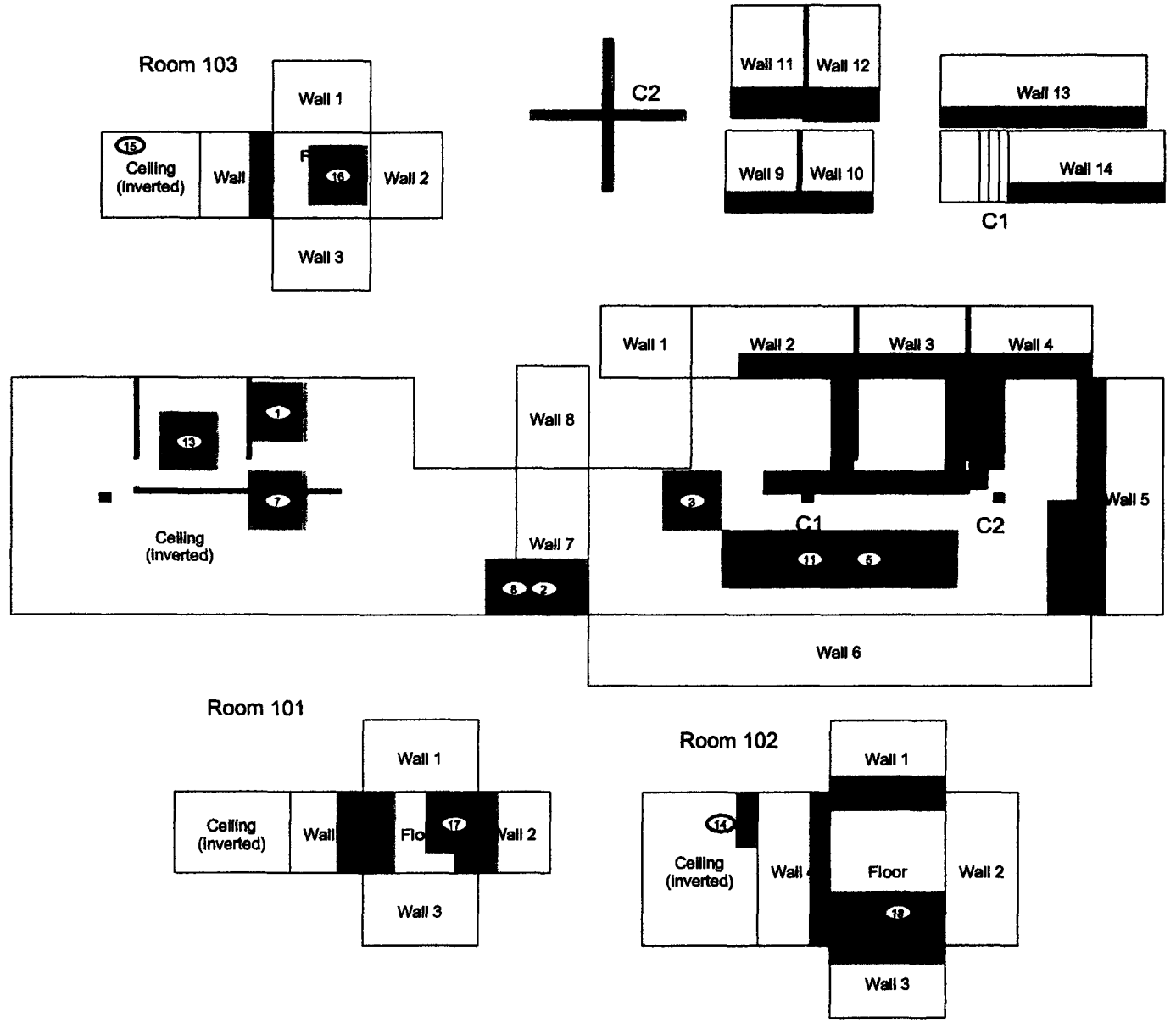
Analyte	Activity (pCi/GRAM)	2-Sigma Uncertainty (pCi/GRAM)	MDA (pCi/GRAM)
K-40	9 41E+000	2 39E+000	3 41E+000
CS-137	0 00E+000	0 00E+000	1 98E-001
TL-208	1 34E-001	9 03E-002	1 45E-001
PO-210	0 00E+000	0 00E+000	1 82E+004
BI-212	0 00E+000	0 00E+000	2 64E+000
PB-212	1 69E-001	1 01E-001	1 62E-001
BI-214	0 00E+000	0 00E+000	3 79E-001
PB-214	0 00E+000	0 00E+000	3 19E-001
RA-226	0 00E+000	0 00E+000	2 23E+000
AC-228	0 00E+000	0 00E+000	7 76E-001
TH-230	0 00E+000	0 00E+000	2 18E+001
Th-231	0 00E+000	0 00E+000	9 75E-001
PA-234	0 00E+000	0 00E+000	2 14E-001
PA-234M	0 00E+000	0 00E+000	2 29E+001
U-235	1 90E-001	8 65E-002	1 38E-001
U238/234	2 04E+000	6 38E-001	9 19E-001
AM-241	0 00E+000	0 00E+000	2 92E-001

PRE-DEMOLITION SURVEY FOR T371F CLUSTER

Survey Area 3 **Survey Unit T371-A-004** **Classification. 3**
Building T371F
Survey Unit Description T371F Interior & Exterior
Total Area 1128 sq m **Total Floor Area 167 sq m**
Total Roof Area 189 sq m

T371F Interior

Main Floor



Scan Area

SURVEY MAP LEGEND

- Smear & TSA Location
- Smear TSA & Sample Location
- Open/Inaccessible Area
- Area in Another Survey Unit

N

0 FEET 25
0 METERS 8

1 inch = 18 feet 1 grid sq. = 1 sq m

Scan Survey Information
Survey Instrument ID #(s) 2, 3, 8
RCT ID #(s) 1, 3, 4

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DynCorp
THE ART OF TECHNOLOGY

MAP ID 02-0589/T371F-INSC October 7, 2002

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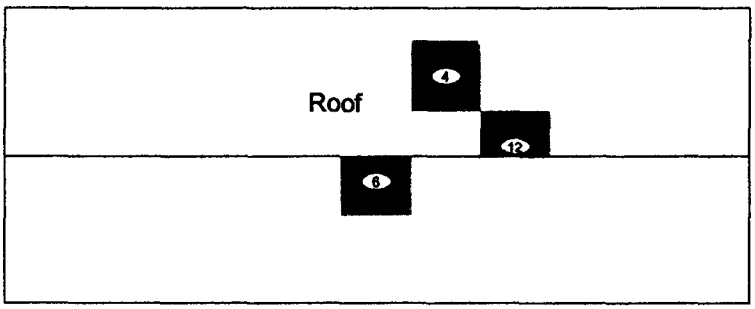
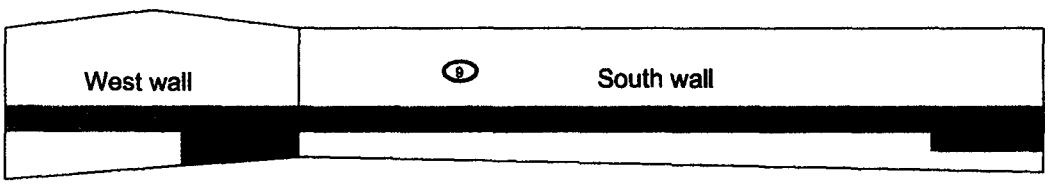
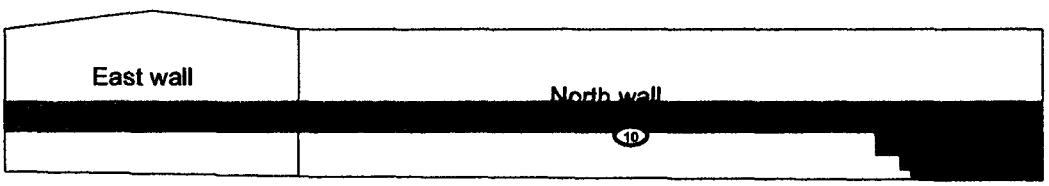
PRE-DEMOLITION SURVEY FOR T371F CLUSTER

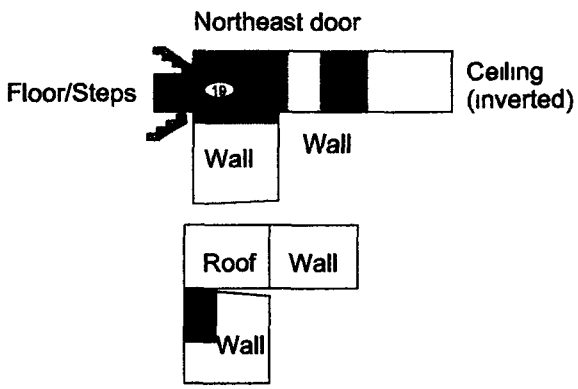
Survey Area A3 (Rev 10/9/02 2) Survey Unit T371-A-004 Classification 3
Building T371F
Survey Unit Description T371F Interior & Exterior
Total Area 1128 sq m Total Floor Area 167 sq m
Total Roof Area 189 sq m

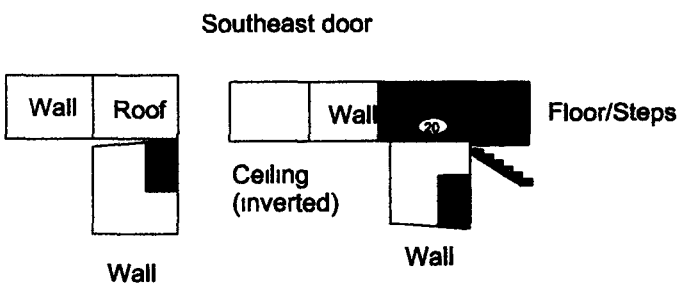
T371F Exterior











Scan Area

SURVEY MAP LEGEND

- Smear & TSA Location
- Smear, TSA & Sample Location
- Open/Inaccessible Area
- Area in Another Survey Unit

N

0 FEET 25
0 METERS 8

1 inch = 18 feet 1 grid sq = 1 sq m

Scan Survey Information
Survey Instrument ID #(s) 2, 3, 8
RCT ID #(s) 1, 3, 4

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MAP ID 02-0589/T371F-EXSC Sept 26, 2002

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ATTACHMENT C-11

Survey Unit T371-A-005

Radiological Data Summaries and Survey Maps

SURVEY UNIT T371-A-005
RADIOLOGICAL DATA SUMMARY - PDS

Survey Unit Description: T371C (Interior)

137

T371-A-005
PDS Data Summary

Total Surface Activity Measurements

	25 Number Required	25 Number Obtained	
MIN	14 2		dpm/100 cm^2
MAX	24 8		dpm/100 cm^2
MEAN	6 1		dpm/100 cm^2
STD DEV	9 7		dpm/100 cm^2
TRANSURANIC DCGL$_W$	100		dpm/100 cm^2

Removable Activity Measurements

	25 Number Required	25 Number Obtained	
MIN	-0 9		dpm/100 cm^2
MAX	2 4		dpm/100 cm^2
MEAN	0 0		dpm/100 cm^2
STD DEV	0 9		dpm/100 cm^2
TRANSURANIC DCGL$_W$	20		dpm/100 cm^2

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SURVEY UNIT T371-A-005
TSA - DATA SUMMARY

Manufacturer	NE Tech	NE Tech	NE Tech
Model	DP 6	DP 6	DP 6
Instrument ID#	1	2	3
Serial #	2352	1250	396
Cal Due Date	2/7/03	10/10/02	1/12/03
Analysis Date	9/3/02	9/3/02	9/3/02
Alpha Eff (c/d)	0 238	0 213	0 234
Alpha Bkgd (cpm)	2 0	0 7	1 3
Sample Time (min)	1 5	1 5	1 5
LAB Time (min)	1 5	1 5	1 5
MDC (dpm/100cm^2)	48 0	48 0	48 0

Sample Location Number	Instrument ID#	Sample Gross Counts (cpm)	Sample Gross Activity (dpm/100cm2)	LAB Gross Counts (cpm)	LAB Gross Activity (dpm/100cm2)	Sample Net Activity (dpm/100cm2)[1,2]
1	1	4 7	19 7	3 3	13 9	2 3
2	1	9 3	39 1	7 2	30 3	21 6
3	3	4 0	17 1	4 0	17 1	-0 3
4	1	3 3	13 9	3 1	13 0	3 6
5	1	3 3	13 9	8 0	33 6	3 6
6	1	8 0	33 6	4 0	16 8	16 2
7	2	5 3	24 9	3 3	15.5	7 4
8	2	4 0	18 8	2 0	9 4	1 3
9	1	8 7	36 6	6 0	25 2	19 1
10	1	8 7	36 6	8 0	33 6	19 1
11	1	5 3	22 3	2 0	8 4	4 8
12	2	4 7	22 1	4 7	22 1	4 6
13	1	6 7	28 2	4 0	16 8	10 7
14	2	9 0	42 3	3 3	15 5	24 8
15	1	8 7	36 6	7 3	30 7	19 1
16	2	4 0	18 8	4 0	18 8	1 3
17	1	6 7	28 2	4 7	19 7	10 7
18	3	2 7	11 5	2 7	11 5	5 9
19	2	4 7	22 1	2 7	12 7	4 6
20	1	6 0	25 2	0 7	2 9	7 8
21	2	0 7	3 3	2 7	12 7	14 2
22	2	3 3	15 5	1 7	8 0	1 9
23	2	4 0	18 8	2 7	12 7	1 3
24	2	3 3	15 5	3 3	15.5	1 9
25	1	6 0	25 2	4 7	19 7	7 8
					17 4	Sample LAB Average
					MIN	14 2
					MAX	24 8
					MEAN	6 1
					SD	9 7
					Transuranic DCGL$_W$	100

1 Average LAB used to subtract from Gross Sample Activity

QC Measurements

6 QC	2	4 7	22 1	2 0	9 4	13 4
11 QC	2	3 3	15 5	1 7	8 0	6 8
					8 7	QC LAB Average
					Transuranic DCGL$_W$	100

1 Average QC LAB used to subtract from Gross Sample Activity

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SURVEY UNIT T371-A-005
RSC - DATA SUMMARY

Manufacturer	Eberline	Eberline	Eberline	Eberline
Model	SAC-4	SAC-4	SAC 4	SAC-4
Instrument ID#	4	5	6	7
Serial #	824	851	963	952
Cal Due Date	10/1/02	10/29/02	1/3/03	1/31/03
Analysis Date	9/3/02	9/3/02	9/3/02	9/3/02
Alpha Eff (c/d)	0 33	0 33	0 33	0.33
Alpha Bkgd (cpm)	0 2	0 1	0 3	0 1
Sample Time (min)	2	2	2	2
Bkgd Time (min)	10	10	10	10
MDC (dpm/100cm^2)	7 0	8 0	4 5	7 0

Sample Location Number	Instrument ID#	Gross Counts (cpm)	Net Activity (dpm/100 cm^2)
1	4	0 0	0 6
2	5	1 0	1 2
3	6	1 0	0 6
4	7	0 0	0 3
5	4	2 0	2 4
6	5	0 0	0 3
7	6	0 0	0 9
8	7	0 0	0 3
9	4	0 0	0 6
10	5	1 0	1 2
11	6	1 0	0 6
12	7	0 0	0 3
13	4	0 0	0 6
14	5	1 0	1 2
15	6	0 0	0 9
16	7	0 0	0 3
17	4	0 0	0 6
18	5	1 0	1 2
19	6	1 0	0 6
20	7	0 0	-0 3
21	4	0 0	0 6
22	5	0 0	0 3
23	6	0 0	0 9
24	7	0 0	0 3
25	4	0 0	0 6
		MIN	0 9
		MAX	2 4
		MEAN	0 0
		SD	0 9
		Transuranic DCGL$_W$	**20**

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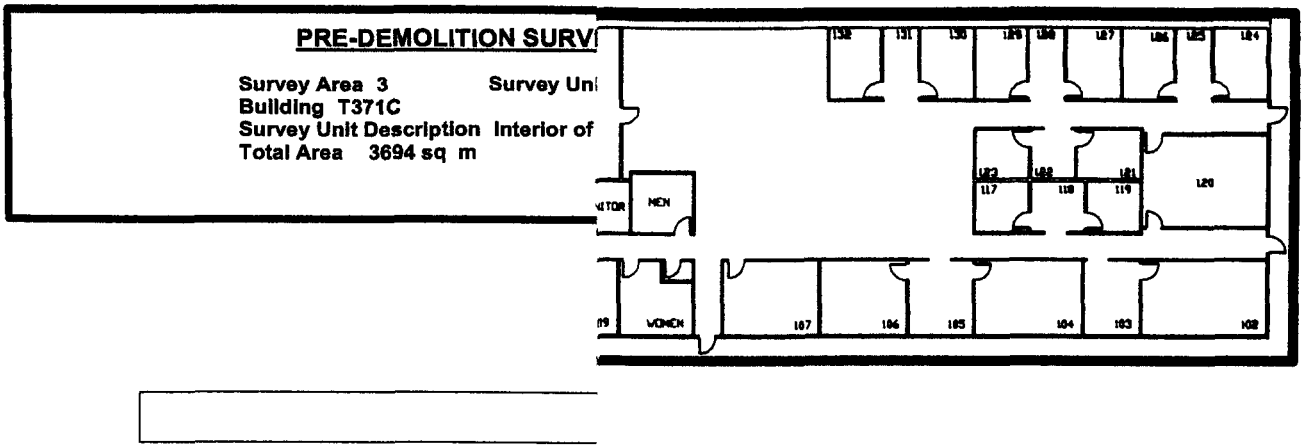
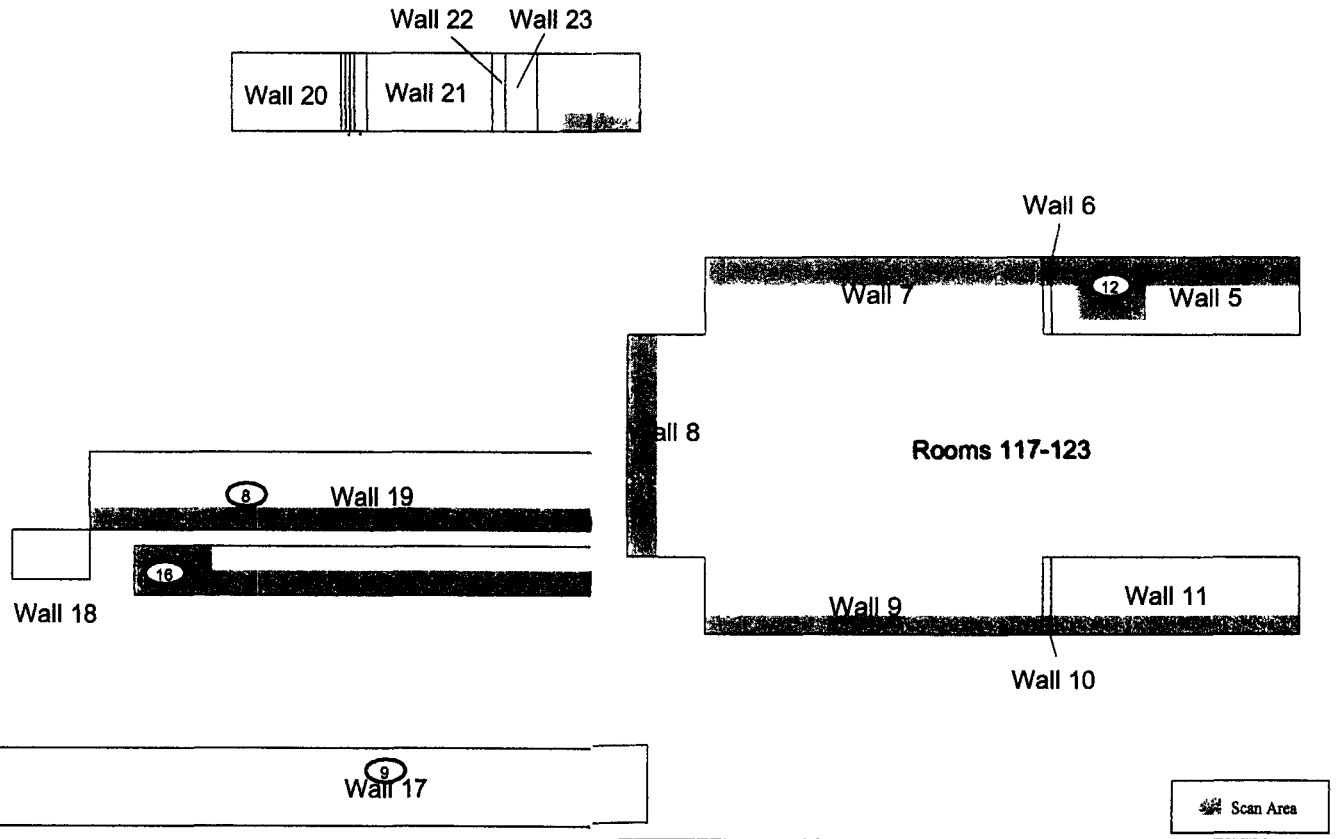
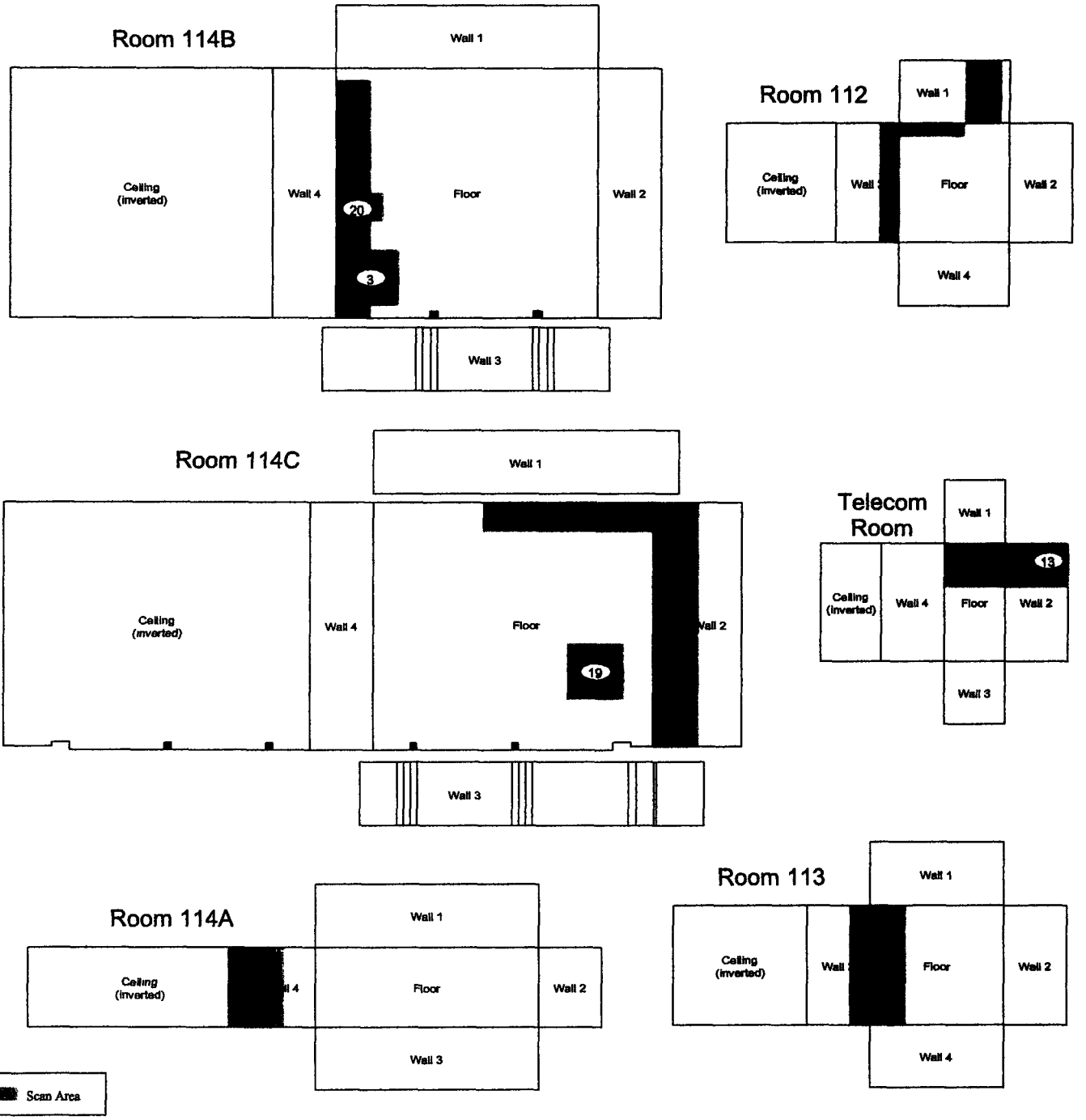


Main floor and hallways



PRE-DEMOLITION SURVEY FOR T371C CLUSTER

Survey Area 3 **Survey Unit T371-A-005** **Classification 3**
Building T371C
Survey Unit Description Interior of Building
Total Area 3694 sq m **Total Floor Area 971 sq m**



SURVEY MAP LEGEND

- Smear & TSA Location
- Smear, TSA & Sample Location
- Open/Inaccessible Area
- Area in Another Survey Unit

N

0 FEET 25
0 METERS 8

1 inch = 18 feet 1 grid sq = 1 sq m

Scan Survey Information
Survey Instrument ID #(s) 8, 9, 10
RCT ID #(s) 1, 2, 3

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Prepared for: [redacted]

DynCorp
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MAP ID 02-0589/T371C-IN2SC October 7, 2002

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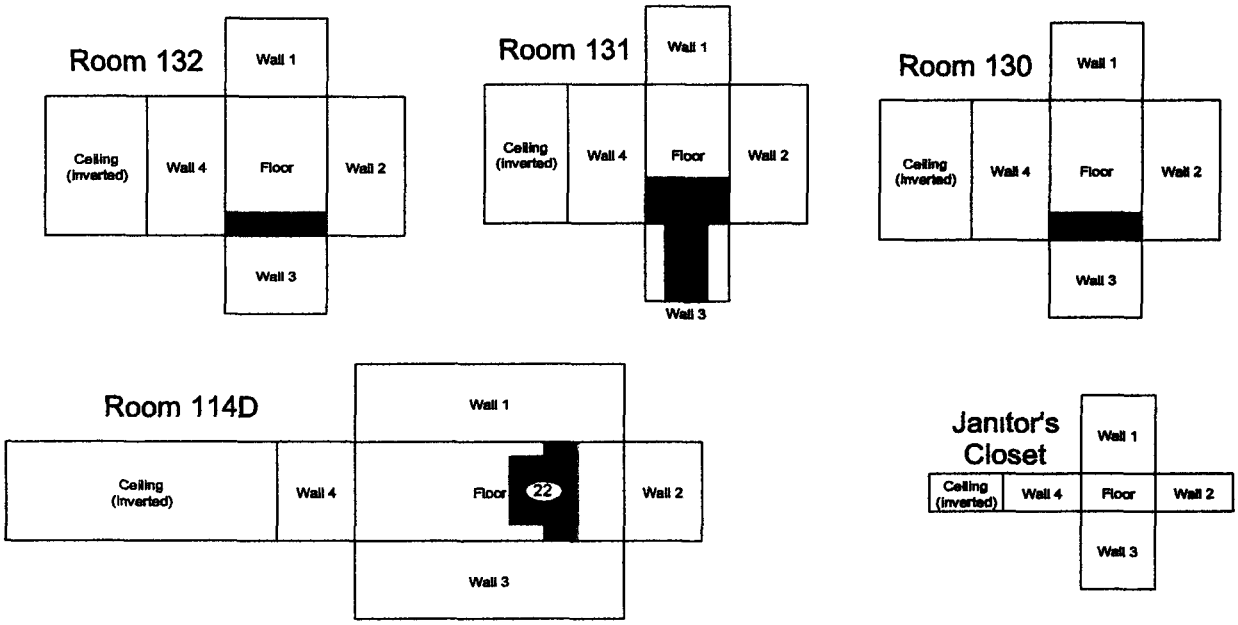
PRE-DEMOLITION SURVEY FOR T371C CLUSTER

Survey Area 3 **Survey Unit T371-A-005** **Classification 3**
Building T371C
Survey Unit Description Interior of Building
Total Area 3694 sq m **Total Floor Area 971 sq m**



SURVEY MAP LEGEND

- Smear & TSA Location
- Smear, TSA & Sample Location
- Open/Inaccessible Area
- Area in Another Survey Unit

N

0 FEET 25
0 METERS 8

1 inch = 18 feet 1 grid sq = 1 sq m

Scan Survey Information
Survey Instrument ID #(s) 8, 9, 10
RCT ID #(s) 1, 2, 3

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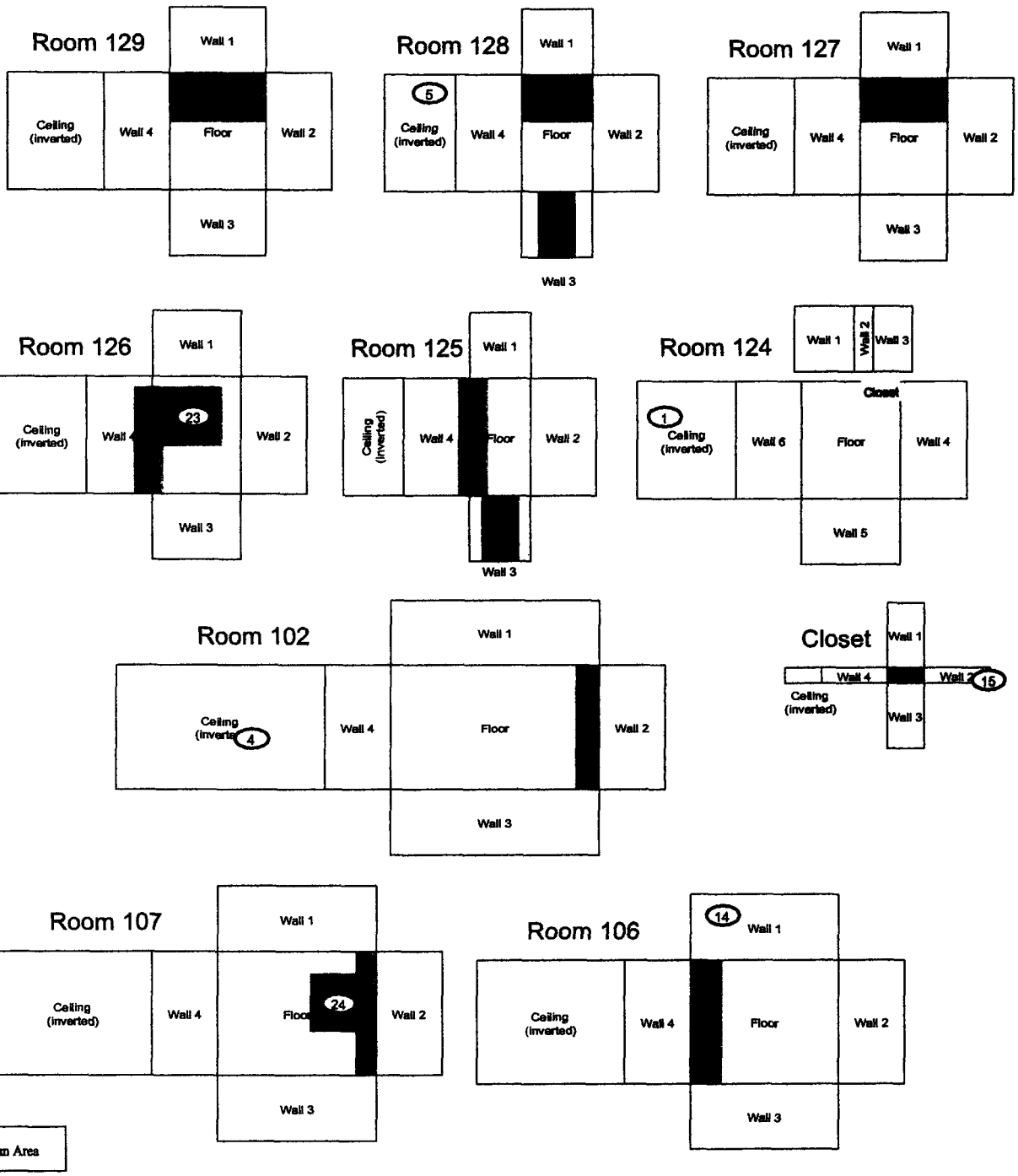
PRE-DEMOLITION SURVEY FOR T371C CLUSTER

Survey Area 3 **Survey Unit T371-A-005** **Classification 3**
Building T371C
Survey Unit Description Interior of Building
Total Area 3694 sq m **Total Floor Area 971 sq m**



SURVEY MAP LEGEND

- (#) Smear & TSA Location
- (#) Smear, TSA & Sample Location
- Open/Inaccessible Area
- Area in Another Survey Unit

N

0 FEET 25
0 METERS 8

1 inch = 18 feet 1 grid sq = 1 sq m

Scan Survey Information
Survey Instrument ID #(s) 8, 9, 10
RCT ID #(s) 1, 2, 3

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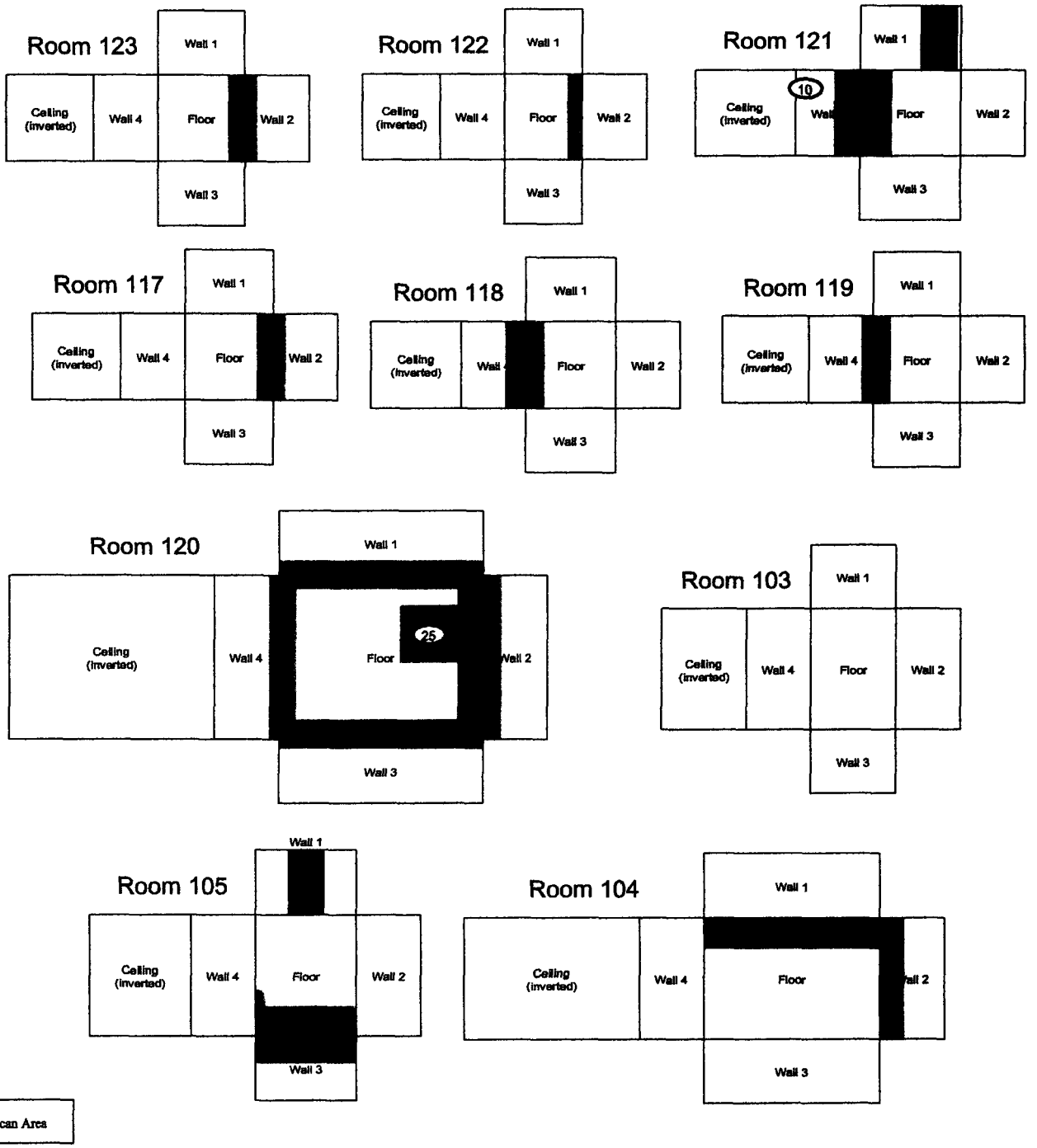
PRE-DEMOLITION SURVEY FOR T371C CLUSTER

Survey Area 3 **Survey Unit T371-A-005** **Classification 3**
Building T371C
Survey Unit Description Interior of Building
Total Area 3694 sq m **Total Floor Area 971 sq m**



SURVEY MAP LEGEND

- Smear & TSA Location
- Smear, TSA & Sample Location
- Open/Inaccessible Area
- Area in Another Survey Unit

N

0 FEET 25
0 METERS 8

1 inch = 18 feet 1 grid sq = 1 sq m

Scan Survey Information
Survey Instrument ID #(s) 8, 9, 10
RCT ID #(s) 1, 2, 3

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MAP ID 02-0589/T371C-IN5SC October 7, 2002

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ATTACHMENT C-12

Survey Unit T371-B-006

Radiological Data Summaries and Survey Maps

SURVEY UNIT T371-B-006
RADIOLOGICAL DATA SUMMARY - PDS

Survey Unit Description T371C (Exterior)

147

T371-B-006
PDS Data Summary

Total Surface Activity Measurements

	22 Number Required	22 Number Obtained	
MIN	7 3		dpm/100 cm^2
MAX	86 3		dpm/100 cm^2
MEAN	27 3		dpm/100 cm^2
STD DEV	27 0		dpm/100 cm^2
TRANSURANIC DCGL$_W$	100		dpm/100 cm^2

Removable Activity Measurements

	22 Number Required	22 Number Obtained	
MIN	1 2		dpm/100 cm^2
MAX	2 7		dpm/100 cm^2
MEAN	0 2		dpm/100 cm^2
STD DEV	1 1		dpm/100 cm^2
TRANSURANIC DCGL$_W$	20		dpm/100 cm^2

148

SURVEY UNIT T371-B-006
TSA - DATA SUMMARY

Manufacturer	NE Tech	NE Tech	NE Tech	NE Tech
Model	DP 6	DP 6	DP 6	DP 6
Instrument ID#	1	2	7	9
Serial #	2352	1250	1250	2352
Cal Due Date	2/7/03	10/10/02	10/10/02	2/7/03
Analysis Date	9/3/02	9/3/02	9/5/02	9/6/02
Alpha Eff (c/d)	0 238	0 213	0 213	0 238
Alpha Bkgd (cpm)	2 0	0 7	1 3	2 0
Sample Time (min)	1 5	1 5	1 5	1 5
LAB Time (min)	1 5	1 5	1 5	1 5
MDC (dpm/100cm^2)	48 0	48 0	48 0	48 0

Sample Location Number	Instrument ID #	Sample Gross Counts (cpm)	Sample Gross Activity (dpm/100cm2)	LAB Gross Counts (cpm)	LAB Gross Activity (dpm/100cm2)	Sample Net Activity (dpm/100cm2)[1,2]
1	1	23 3	97 9	4 7	19 7	77 9
2	9	10 0	42 0	6 0	25 2	22 0
3	9	17 3	72 7	4 0	16 8	52 7
4	1	7 3	30 7	6 7	28 2	10 7
5	1	8 0	33 6	5 3	22 3	13 6
6	2	4 7	22 1	7 3	34 3	2 1
7	1	6 0	25 2	3 3	13 9	5 2
8	1	6 7	28 2	6 7	28 2	8 2
9	9	14 7	61 8	7 3	30 7	41 8
10	1	14 0	58 8	5 3	22 3	38 9
11	1	25 3	106 3	7 7	32 4	86 3
12	2	8 7	40 8	4 0	18 8	20 9
13	9	12 0	50 4	5 3	22 3	30 4
14	2	2 7	12 7	2 7	12 7	7 3
15	9	19 3	81 1	6 0	25 2	61 1
16	1	12 7	53 4	2 0	8 4	33 4
17	1	12 7	53 4	6 0	25 2	33 4
18	7	17 3	81 2	2 7	12 7	61 2
19	2	5 3	24 9	2 0	9 4	4 9
20	2	4 7	22 1	1 3	6 1	2 1
21	2	5 3	24 9	1 3	6 1	4 9
22	2	3 3	15 5	4 0	18 8	4 5
					20 0	Sample LAB Average
					MIN	7 3
					MAX	86 3
					MEAN	27 3
					SD	27 0
					Transuranic DCGL$_W$	100

1 Average LAB used to subtract from Gross Sample Activity

2 The initial Sample Net Activity for location 3 was 161 2 dpm/100cm^2
This location was re surveyed after a decay period Re survey results are reported

QC Measurements

12 QC	1	8 7	36 6	7 3	30 7	14 9
16 QC	2	6 7	31 5	2 7	12 7	9 8
					21 7	QC LAB Average
					Transuranic DCGL$_W$	100

1 Average QC LAB used to subtract from Gross Sample Activity

149

SURVEY UNIT T371-B-006
RSC - DATA SUMMARY

Manufacturer	Eberline	Eberline	Eberline	Eberline
Model	SAC-4	SAC-4	SAC-4	SAC-4
Instrument ID#	3	4	5	6
Serial #	824	851	963	**952**
Cal Due Date	10/1/02	10/29/02	1/3/03	**1/31/03**
Analysis Date	9/3/02	9/3/02	9/3/02	**9/3/02**
Alpha Eff (c/d)	0 33	0 33	0 33	**0.33**
Alpha Bkgd (cpm)	0 2	0 1	0 3	**0 1**
Sample Time (min)	2	2	2	**2**
Bkgd Time (min)	10	10	10	**10**
MDC (dpm/100cm^2)	9 0	9 0	9 0	**9 0**

Model	SAC-4	SAC-4	SAC-4	**SAC-4**
Instrument ID#	8	10	11	**12**
Serial #	824	824	851	**963**
Cal Due Date	10/1/02	10/1/02	10/29/02	**1/3/03**
Analysis Date	9/5/02	9/9/02	9/9/02	**9/9/02**
Alpha Eff (c/d)	0 33	0 33	0 33	**0.33**
Alpha Bkgd (cpm)	0 2	0 1	0 4	**0 1**
Sample Time (min)	2	2	2	**2**
Bkgd Time (min)	10	10	10	**10**
MDC (dpm/100cm^2)	9 0	9 0	9 0	**9 0**

Sample Location Number	**Instrument ID#**	**Gross Counts (cpm)**	**Net Activity (dpm/100 cm^2)**
1	3	1	0 9
2	8	0	-0 6
3	4	0	-0 3
4	4	1	1 2
5	5	0	-0 9
6	6	0	-0 3
7	3	0	-0 6
8	4	1	1 2
9	10	1	1 2
10	5	0	-0 9
11	5	0	-0 9
12	6	0	-0 3
13	12	0	-0 3
14	3	1	0 9
15	11	0	-1 2
16	4	2	2 7
17	5	2	2 1
18	8	1	0 9
19	3	0	-0 6
20	4	0	-0 3
21	5	1	0 6
22	6	0	-0 3
		MIN	-1 2
		MAX	2 7
		MEAN	0 2
		SD	1 1
		Transuranic DCGL$_W$	**20**

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ATTACHMENT C-13

Survey Unit 760A-A-001

Radiological Data Summaries and Survey Maps

SURVEY UNIT 760-A-001
RADIOLOGICAL DATA SUMMARY - PDS

Survey Unit Description: T760A (Interior & Exterior)

153

760A-A-001
PDS Data Summary

Total Surface Activity Measurements

	25 Number Required	25 Number Obtained	
MIN	8 2		dpm/100 cm^2
MAX	76 8		dpm/100 cm^2
MEAN	15 0		dpm/100 cm^2
STD DEV	22 6		dpm/100 cm^2
TRANSURANIC DCGL$_W$	100		dpm/100 cm^2

Removable Activity Measurements

	25 Number Required	25 Number Obtained	
MIN	1 8		dpm/100 cm^2
MAX	3 3		dpm/100 cm^2
MEAN	-0 1		dpm/100 cm^2
STD DEV	1 5		dpm/100 cm^2
TRANSURANIC DCGL$_W$	20		dpm/100 cm^2

154

SURVEY UNIT 760A-A-001
TSA - DATA SUMMARY

Manufacturer	NE Tech	NE Tech	NE Tech
Model	DP 6	DP 6	DP 6
Instrument ID#	1	2	7
Serial #	1250	2344	2352
Cal Due Date	10/10/02	1/17/03	2/7/03
Analysis Date	9/18/02	9/18/02	9/19/02
Alpha Eff (c/d)	0 213	0 222	0 238
Alpha Bkgd (cpm)	1 0	1 0	2 0
Sample Time (min)	1 5	1 5	1 5
LAB Time (min)	1 5	1 5	1 5
MDC (dpm/100cm^2)	48 0	48 0	48 0

Sample Location Number	Instrument ID#	Sample Gross Counts (cpm)	Sample Gross Activity (dpm/100cm2)	LAB Gross Counts (cpm)	LAB Gross Activity (dpm/100cm2)	Sample Net Activity (dpm/100cm2)[1,2]
1	2	6	27 0	3 3	14 9	6 6
2	1	26	122 1	6	28 2	0 0
3	2	6 7	30 2	2	9 0	9 8
4	1	8 7	40 8	4	18 8	20 5
5	1	12	56 3	3.3	15 5	36 0
6	2	5 3	23 9	4	18 0	3 5
7	2	3 3	14 9	0 7	3 2	5 5
8	1	20 7	97 2	7 3	34 3	76 8
9	2	4	18 0	2 7	12 2	2 4
10	1	8	37 6	6	28 2	17 2
11	1	18 7	87 8	7 3	34 3	67 4
12	2	8 7	39 2	5 3	23 9	18 8
13	1	16 7	78 4	8	37 6	58 0
14	2	3 3	14 9	6 7	30 2	5 5
15	2	8 7	39 2	5 3	23 9	18 8
16	7	32	134 5	0 7	2 9	0 0
17	7	30 7	129 0	2	8 4	0 0
18	2	6 7	30 2	2 7	12 2	9 8
19	1	8 7	40 8	6 7	31 5	20 5
20	2	4	18 0	1 3	5 9	2 4
21	1	8	37 6	5 3	24 9	17 2
22	2	2 7	12 2	3 3	14 9	8 2
23	1	6	28 2	7 3	34 3	7 8
24	2	4	18 0	4	18 0	2 4
25	1	7 3	34 3	5 3	24 9	13 9

20 4	Sample LAB Average
MIN	8 2
MAX	76 8
MEAN	15 0
SD	22 6
Transuranic DCGL$_W$	100

1 Average LAB used to subtract from Gross Sample Activity

2 The initial Sample Net Activity for locations 2 16 and 17 were 101 7 114 1 and 108 6 dpm/100cm^2 respectively
A coupon sample was collected from location 16 and analyzed using the Canberra ISOCS system No transuranic isotopes were detected Exposed metal sample activity was determined to be from uranium and naturally occuring isotopes
The Sample Net Activity for each of these locations is below the uranium DCGL$_W$ limits (5000 dpm/100cm2)
All survey results are less than the applicable DCGLs therefore no further investigation is required
On this basis transuranic values for locations 2 16 and 17 are reported as zero (0) net activity in the TSA Data Summary

QC Measurements

5 QC	1	10 0	46 9	2 7	12 7	27 1
9 QC	2	8 7	39 2	6 0	27 0	19 3

19 9	QC LAB Average
Transuranic DCGL$_W$	100

1 Average QC LAB used to subtract from Gross Sample Activity

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SURVEY UNIT 760A-A-001
RSC - DATA SUMMARY

Manufacturer	Eberline	Eberline	Eberline	Eberline
Model	SAC-4	SAC-4	SAC 4	SAC-4
Instrument ID#	3	4	5	6
Serial #	824	966	963	952
Cal Due Date	10/1/02	11/6/02	1/3/03	1/31/03
Analysis Date	9/18/02	9/18/02	9/18/02	8/22/02
Alpha Eff (c/d)	0 33	0 33	0 33	0 33
Alpha Bkgd (cpm)	0 4	0 2	0 6	0 1
Sample Time (min)	2	2	2	2
Bkgd Time (min)	10	10	10	10
MDC (dpm/100cm^2)	9 0	9 0	9 0	9 0

Manufacturer	Eberline	Eberline
Model	SAC-4	SAC-4
Instrument ID#	8	9
Serial #	824	966
Cal Due Date	10/1/02	11/6/02
Analysis Date	9/19/02	9/19/02
Alpha Eff (c/d)	0 33	0 33
Alpha Bkgd (cpm)	0 3	0 1
Sample Time (min)	2	2
Bkgd Time (min)	10	10
MDC (dpm/100cm^2)	9 0	9 0

Sample Location Number	Instrument ID#	Gross Counts (cpm)	Net Activity (dpm/100 cm^2)
1	3	0 0	-1 2
2	4	0 0	-0 6
3	5	0 0	-1 8
4	6	0 0	-0 3
5	3	0 0	1 2
6	4	1 0	0 9
7	5	0 0	1 8
8	6	0 0	-0 3
9	3	3 0	3 3
10	4	0 0	-0 6
11	5	0 0	-1 8
12	6	0 0	-0 3
13	3	1 0	0 3
14	4	0 0	0 6
15	5	0 0	1 8
16	8	2 0	2 1
17	9	2 0	2 7
18	6	0 0	-0 3
19	3	2 0	1 8
20	4	0 0	-0 6
21	5	0 0	1 8
22	6	0 0	0 3
23	3	2 0	1 8
24	4	0 0	-0 6
25	5	1 0	-0 3
		MIN	-1 8
		MAX	3 3
		MEAN	-0 1
		SD	1 5
		Transuranic DCGL$_W$	20

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CANBERRA

Analysis Results Header 9/24/2002 1 36 27 PM Page 1

****
***** GAMMA SPECTRUM ANALYSIS *****
** Canberra Mobile Laboratory Services **
****

Report Generated On 9/24/2002 1 36 27 PM

RIN Number 02S0246
Analytical Batch ID 0209234732
Line Item Code RC10B019

Metal Coupon Samples

T 371F, B 367,

T 760A

Filename A \G1900063 CNF

Sample Number 02S02046-005 001
Lab Sample Number CMLS1727
Sample Receipt Date 9/23/2002
Sample Volume Received 3 71E+001 GRAM

Result Identifier NA

Peak Locate Threshold 2 50
Peak Locate Range (in channels) 100 - 8192
Peak Area Range (in channels) 100 - 8192
Identification Energy Tolerance 1 000 keV

Sample (Final Aliquot Size) 3 710E+001 GRAM
Sample Quantity Error 0 000E+000
Systematic Error Applied 0 000E+000

Sample Taken On 9/20/2002 2 00 00 PM
Acquisition Started 9/24/2002 7 29 01 AM

Count Time 7200 0 seconds
Real Time 7205 5 seconds
Dead Time 0 08 %

Energy Calibration Used Done On 7/01/02
Energy = -0 102 + 0 250*ch + -3 87E-008*ch^2 + 2 95E-012*ch^3

Corrections Applied
None

Efficiency Calibration Used Done On 9/24/02
Efficiency Geometry ID 02S0246-005 001

Analyzed By Doug Scott Date 9/24/02

Reviewed By Phil Sanderson Date 9/24/02

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****
***** Sample and QC Sample Results Summary *****
****

Site Sample ID 02S02046-005 001

Analytical Batch ID 0209234732

Sample Type (Result Identifier) G19

Lab Sample Number CMLS1727

Geometry ID 02S0246-005 001

Filename A \G1900063 CNF

Detector Name BEGE4732

MDA = Curie method as specified in Genie-2000 Customization Tools Manual Appendix B, Basic Algorithms

Analyte	Activity (pCi/GRAM)	2-Sigma Uncertainty (pCi/GRAM)	MDA (pCi/GRAM)
K-40	9 41E+000	2 39E+000	3 41E+000
CS-137	0 00E+000	0 00E+000	1 98E-001
TL-208	1 34E-001	9 03E-002	1 45E-001
PO-210	0 00E+000	0 00E+000	1 82E+004
BI-212	0 00E+000	0 00E+000	2 64E+000
PB-212	1 69E-001	1 01E-001	1 62E-001
BI-214	0 00E+000	0 00E+000	3 79E-001
PB-214	0 00E+000	0 00E+000	3 19E-001
RA-226	0 00E+000	0 00E+000	2 23E+000
AC-228	0 00E+000	0 00E+000	7 76E-001
TH-230	0 00E+000	0 00E+000	2 18E+001
Th-231	0 00E+000	0 00E+000	9 75E-001
PA-234	0 00E+000	0 00E+000	2 14E-001
PA-234M	0 00E+000	0 00E+000	2 29E+001
U-235	1 90E-001	8 65E-002	1 38E-001
U238/234	2 04E+000	6 38E-001	9 19E-001
AM-241	0 00E+000	0 00E+000	2 92E-001

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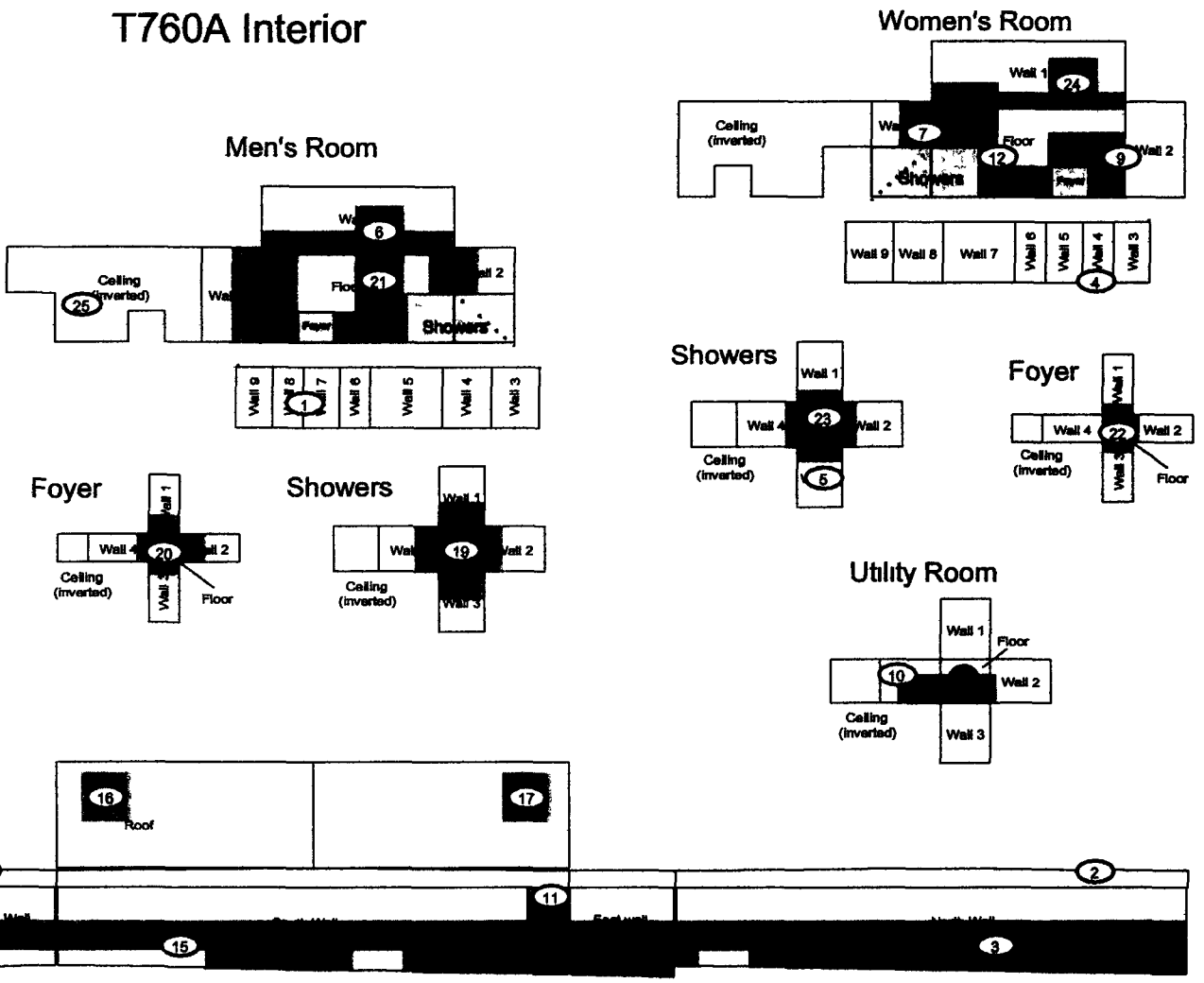
PRE-DEMOLITION SURVEY FOR T760A CLUSTER

Survey Area 4 **Survey Unit 760A-A-001** **Classification 3**
Building T760A
Survey Unit Description Interior & Exterior
Total Area 688 sq m **Total Floor Area 76 sq m**
Total Roof Area 98 sq m

T760A Interior



T760A Exterior

Scan Area

SURVEY MAP LEGEND

- Smear & TSA Location
- Smear, TSA & Sample Location
- Open/Inaccessible Area
- Area in Another Survey Unit

N

0 FEET 30
0 METERS 10

1 inch = 24 feet 1 grid sq = 1 sq m.

Scan Survey Information
Survey Instrument ID #(s) 10
RCT ID #(s) 1

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Prepared by GIS Dept 303-966 7707

Prepared for

DynCorp
THE ART OF TECHNOLOGY

MAP ID. 02-0912/T760A-SC October 7, 2002

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ATTACHMENT D

Chemical Data Summaries and Sample Maps

Asbestos Data Summary

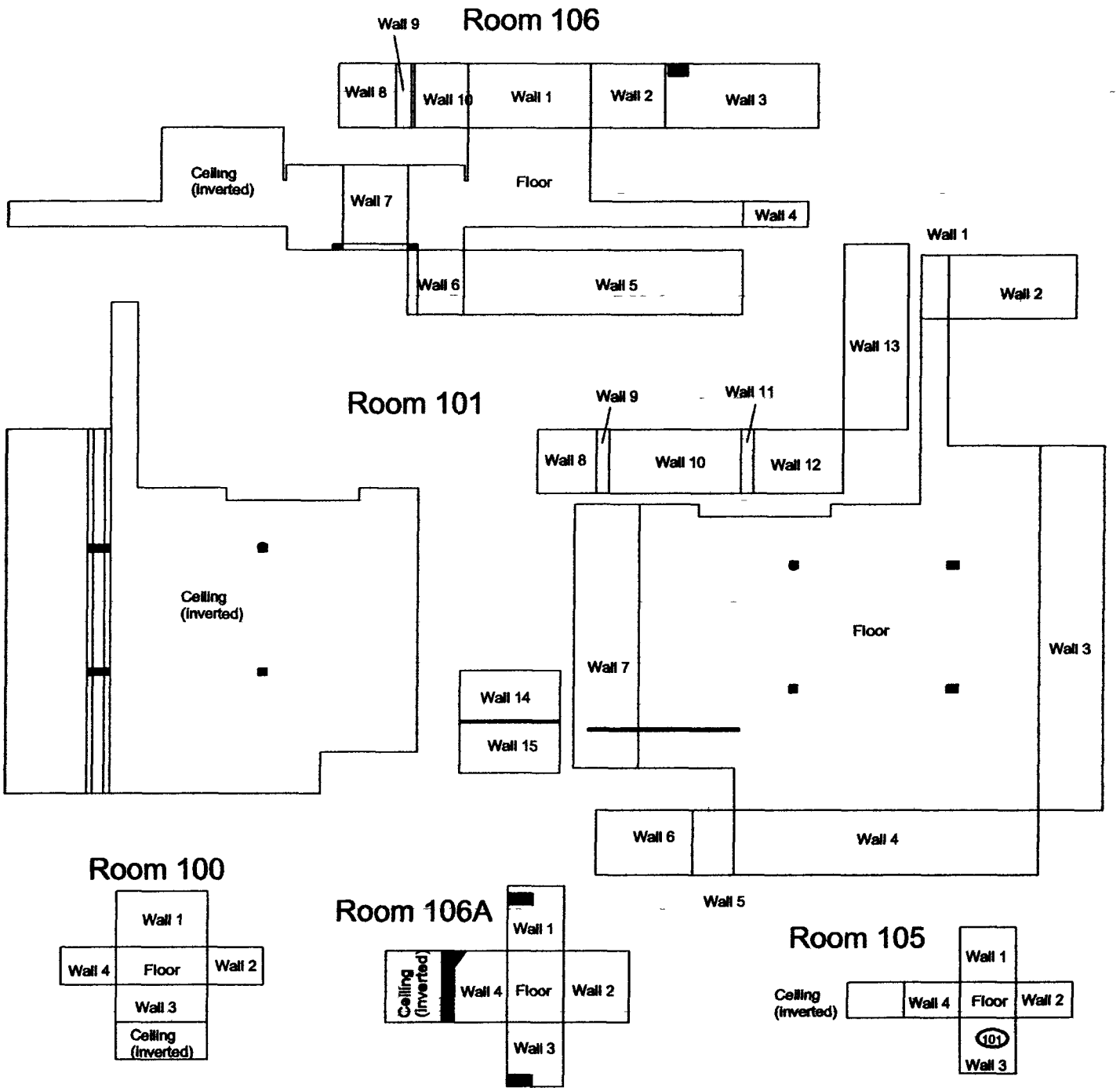
Sample Number	Map Survey Point Location	Room	Sample Location	Analytical Results
Building 112 – newly acquired data				
112-08282002-315-101	101	105	Beige paint on CMU, south wall	3% Chrysotile, 1 5% Point Count
112-08282002-315-102	102	114A	Beige paint on CMU, south wall	3% Chrysotile, 2% Point Count
112-08282002-315-103	103	116	Beige paint on CMU, west wall	3% Chrysotile, 1 75% Point Count
112-08282002-315-104	104	111	Green paint on CMU, north wall	2% Chrysotile, 0 5% Point Count
112-08282002-315-105	105	111	Green paint on CMU, corner	Trace Chrysotile, None Detected, Point Count
112-08282002-315-106	106	111	Green paint on CMU, south wall of refrigerator room	1% Chrysotile, 0 5% Point Count
112-08282002-315-107	107	East Dock	Tan paint/stucco, east exterior wall	None Detected
112-08282002-315-108	108	Exterior	Tan paint/stucco, north exterior wall	None Detected
112-08282002-315-109	109	Exterior	Window caulking and tan paint, south exterior	2% Chrysotile, 0 25% Point Count
112-08282002-315-110	110	Exterior	Tan paint/stucco, west exterior wall	None Detected
112-08282002-315-111	111	Exterior	Window caulking and tan paint, west exterior wall	10% Chrysotile
112-08282002-315-112	112	Exterior	Window caulking, west exterior wall	2% Chrysotile, None Detected, Point Count
112-08282002-315-113	113	Roof	Black roofing fabric over rubber	None Detected
112-08282002-315-114	114	Roof	Black roofing fabric over rubber	None Detected
Refer to attached Sitex report for Building 112 1996 Sitex data				
Building 223				
223-09162002-315-201	201	Office	12" gray & white vinyl floor tile and black mastic	None Detected
223-09162002-315-202	202	Restroom	12" gray & white vinyl floor tile and black mastic	None Detected
223-09162002-315-203	203	Office	Drywall only, north wall	None Detected
223-09162002-315-204	204	Office	Joint compound only	None Detected
223-09162002-315-205	205	Office	2' x 4' white patterned acoustical drop ceiling tile	None Detected
223-09162002-315-206	206	Restroom	2' x 4' white patterned acoustical drop ceiling tile	None Detected
Building T371F				
T371F-09202002-315-201	201	Main	Drywall panel with tan & white fabric, south wall	None Detected
T371F-09202002-315-202	202	102	Drywall panel with tan & white fabric, north wall	None Detected
T371F-09202002-315-203	203	Main	Drywall panel with tan & white fabric, west wall	None Detected
T371F-09202002-315-204	204	103	2' x 4' white acoustical drop ceiling tile with large 'worm" pattern	None Detected
T371F-09202002-315-208	205	Main	2' x 4' white acoustical drop ceiling tile with large "worm' pattern	None Detected
T371F-09202002-315-206	206	101	2' x 4' white acoustical drop ceiling tile with large worm" pattern	None Detected
Building T371A				
T371A-09202002-315-207	207	9	Drywall panel with blue, tan & white fabric, west wall	None Detected
T371A-09202002-315-208	208	1	Drywall panel with blue, tan & white fabric, west wall	None Detected
T371A-09202002-315-209	209	Main	Drywall panel with beige & tan fabric, north wall	None Detected
T371A-09202002-315-210	210	Main	Drywall panel with beige & tan fabric, east wall at couth exit	None Detected
T371A-09202002-315-211	211	1	2' x 4' white acoustical drop ceiling tile with "scatter" pattern	None Detected

Sample Number	Map Survey Point Location	Room	Sample Location	Analytical Results
T371A-09202002-315-212	212	6	2' x 4' white acoustical drop ceiling tile with "scatter" pattern	None Detected
T371A-09202002-315-213	213	3	Glued-on white perforated acoustical ceiling tile above drop ceiling	None Detected
T371A-09202002-315-214	214	1	Glued-on white perforated acoustical ceiling tile above drop ceiling	None Detected
T371A-09202002-315-215	215	6	Glued-on white perforated acoustical ceiling tile above drop ceiling	None Detected
T371A-09202002-315-249	249	Roof	Silver tar shingles with black tar patching at west edge	Trace Chrysotile, 0 25% Point Count
T371A-09202002-315-250	250	Roof	Silver tar shingles at west edge	4% Chrysotile
T371A-09202002-315-251	251	Roof	Silver tar shingles and flashing at north edge	6% Chrysotile
Building T371D				
T371D-09202002-315-216	216	Main	Drywall panel, beige & tan, south wall	None Detected
T371D-09202002-315-217	217	Main	Drywall panel, beige & tan, north wall	None Detected
T371D-09202002-315-218	218	Main	Drywall only at roof deck above acoustical drop ceiling	None Detected
T371D-09202002-315-219	219	Main	Drywall only at roof deck above acoustical drop ceiling	None Detected
T371D-09202002-315-220	220	Main	2' x 4' white acoustical drop ceiling tile with perforated pattern	None Detected
T371D-09202002-315-221	221	Main	2' x 4' white acoustical drop ceiling tile with perforated pattern	None Detected
T371D-09202002-315-222	222	SE Room	Inside cold air return duct, fiberglass batt with black tar	None Detected
Building T371E				
T371E-09202002-315-223	223	Men s	Drywall only, west wall	None Detected
T371E-09202002-315-224	224	Men's	Beige and tan linoleum	None Detected
T371E-09202002-315-225	225	Women's	2' x 4' white acoustical drop ceiling tile	None Detected
T371E-09202002-315-226	226	Men's	Dark brown base cove	Trace Chrysotile, None Detected by Point Count
T371E-09202002-315-227	227	Women's	Drywall only, north wall	None Detected
T371E-09202002-315-228	228	Women's	Beige and tan linoleum	None Detected
Building T371C				
T371C-09202002-315-229	229	102	Drywall panel only with beige & tan vertical stripped fabric, north wall	None Detected
T371C-09202002-315-230	230	Hallway	Beige drywall only, north wall outside Room 117	None Detected
T371C-09202002-315-231	231	114B	Drywall panel only, cream colored, north wall	None Detected
T371C-09202002-315-232	232	113	Drywall panel only, cream colored, south wall	None Detected
T371C-09202002-315-233	233	Janitor's	Tan & white checkered linoleum	None Detected
T371C-09202002-315-234	234	Janitor's	Dark brown base cove	None Detected
T371C-09202002-315-235	235	Hallway	Drywall panel only, cream colored, outside Room 132	None Detected
T371C-09202002-315-236	236	Men's	12" beige & tan vinyl floor tiles with tan adhesive	None Detected
T371C-09202002-315-237	237	Men's	12" gray & black vinyl floor tiles with tan adhesive	None Detected
T371C-09202002-315-238	238	Men's	2' x 4' white acoustical drop ceiling tile with large "worm" pattern	None Detected
T371C-09202002-315-239	239	Women's	12" white & beige vinyl floor tile and tan adhesive	None Detected
T371C-09202002-315-240	240	Women's	2' x 4' white acoustical drop ceiling tile with large "worm" pattern	None Detected
T371C-09202002-315-241	241	114D	2' x 4' white acoustical drop ceiling tile with large "worm" pattern	None Detected
T371C-09202002-315-242	242	113	Joint compound & drywall at deck above drop ceiling	None Detected
T371C-09202002-315-243	243	113	Drywall only at deck above drop ceiling	None Detected

Sample Number	Map Survey Point Location	Room	Sample Location	Analytical Results
T371C-09202002-315-244	244	113	2' x 4' white acoustical drop ceiling tile with large "worm" pattern	None Detected
T371C-09202002-315-245	245	Hallway	2' x 4' white acoustical drop ceiling tile with large "worm" pattern	None Detected
T371C-09202002-315-246	246	Roof	South edge of roof, white bonding over Styrofoam and fiberglass	None Detected
T371C-09202002-315-247	247	Roof	South edge of roof, white bonding over Styrofoam and fiberglass	None Detected
T371C-09202002-315-248	248	Roof	South edge of roof, white bonding over Styrofoam and fiberglass	None Detected
Building 553				
			Roof and siding are typical Transite corrugated panels, assumed to be asbestos containing, and therefore were not sampled	Positive
Building T760A				
T760A-09232002-315-201	201	Foyer	12" beige & tan vinyl floor tile with yellow adhesive	None Detected
T760A-09232002-315-202	202	Men's	12" beige & tan vinyl floor tile with yellow adhesive	None Detected
T760A-09232002-315-203	203	Men's	Dark brown base cove	None Detected
T760A-09232002-315-204	204	Women's	4" x 4" square, patterned beige & tan linoleum	None Detected
T760A-09232002-315-205	205	Women's	4" x 4" square, patterned beige & tan linoleum	None Detected
T760A-09232002-315-206	206	Women's	Drywall only, north wall	None Detected

CHEMICAL SAMPLE MAP

Building: 112 Interior



SURVEY MAP LEGEND

- Asbestos Sample Location
- Beryllium Sample Location
- Lead Sample Location
- RCRA/CERCLA Sample Location
- PCB Sample Location
- Open/Inaccessible Area
- Area in Another Survey Unit

N

0 FEET 30

0 METERS 10

1 inch = 24 feet 1 grid sq = 1 sq m.

U S Department of Energy
Rocky Flats Environmental Technology Site

Prepared by: GIS Dept. 303-966-7707

Prepared for: [redacted]

DynCorp
THE ART OF TECHNOLOGY

MAP ID 02-0312/112-IN-1-AB September 12, 2002

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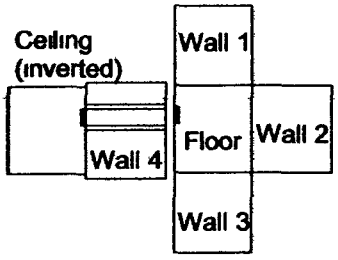
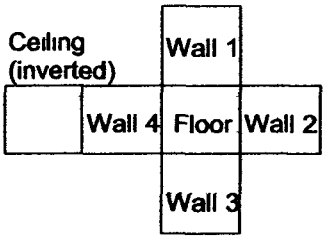
CHEMICAL SAMPLE MAP

Building: 112 Interior

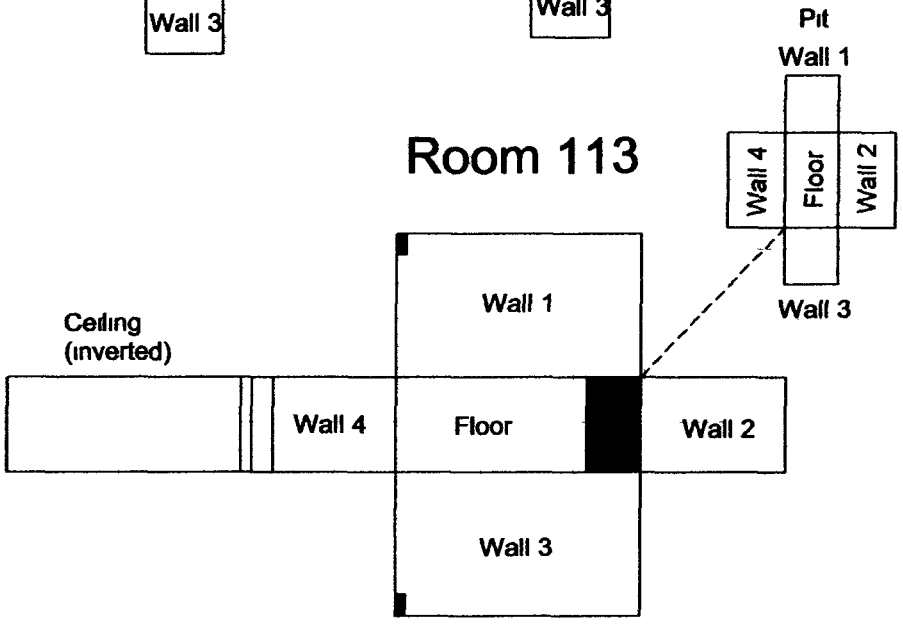
Room 108A



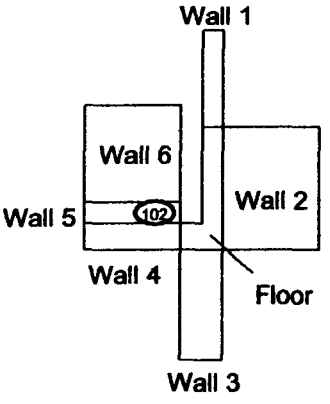
Room 108



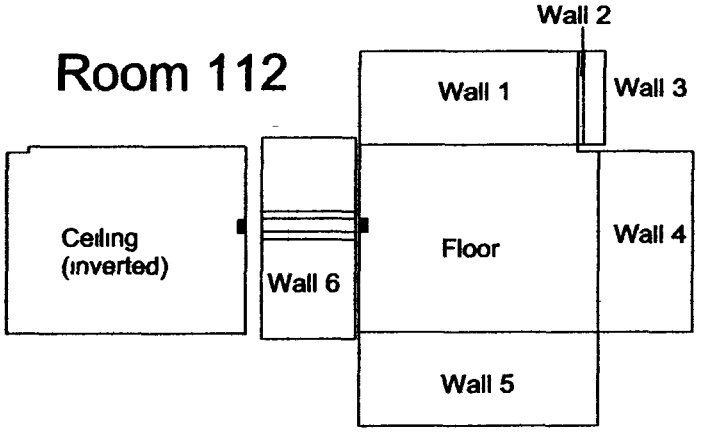
Room 113



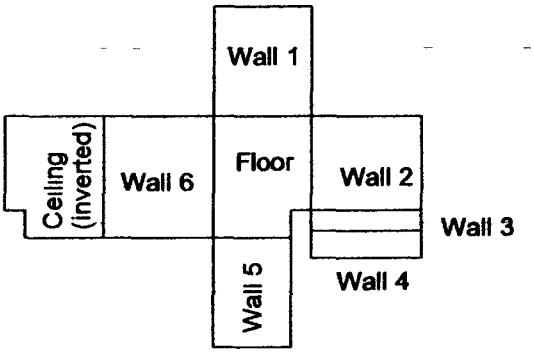
Janitor Closet



Room 112



Room 114



SURVEY MAP LEGEND

- Asbestos Sample Location
- Beryllium Sample Location
- Lead Sample Location
- RCRA/CERCLA Sample Location
- PCB Sample Location
- Open/Inaccessible Area
- Area in Another Survey Unit

N

0 FEET 25

0 METERS 8

1 inch = 18 feet 1 grid sq. = 1 sq. m

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DynCorp
THE ART OF TECHNOLOGY

[redacted]

MAP ID 02-0312/112-IN-4-AB September 12, 2002

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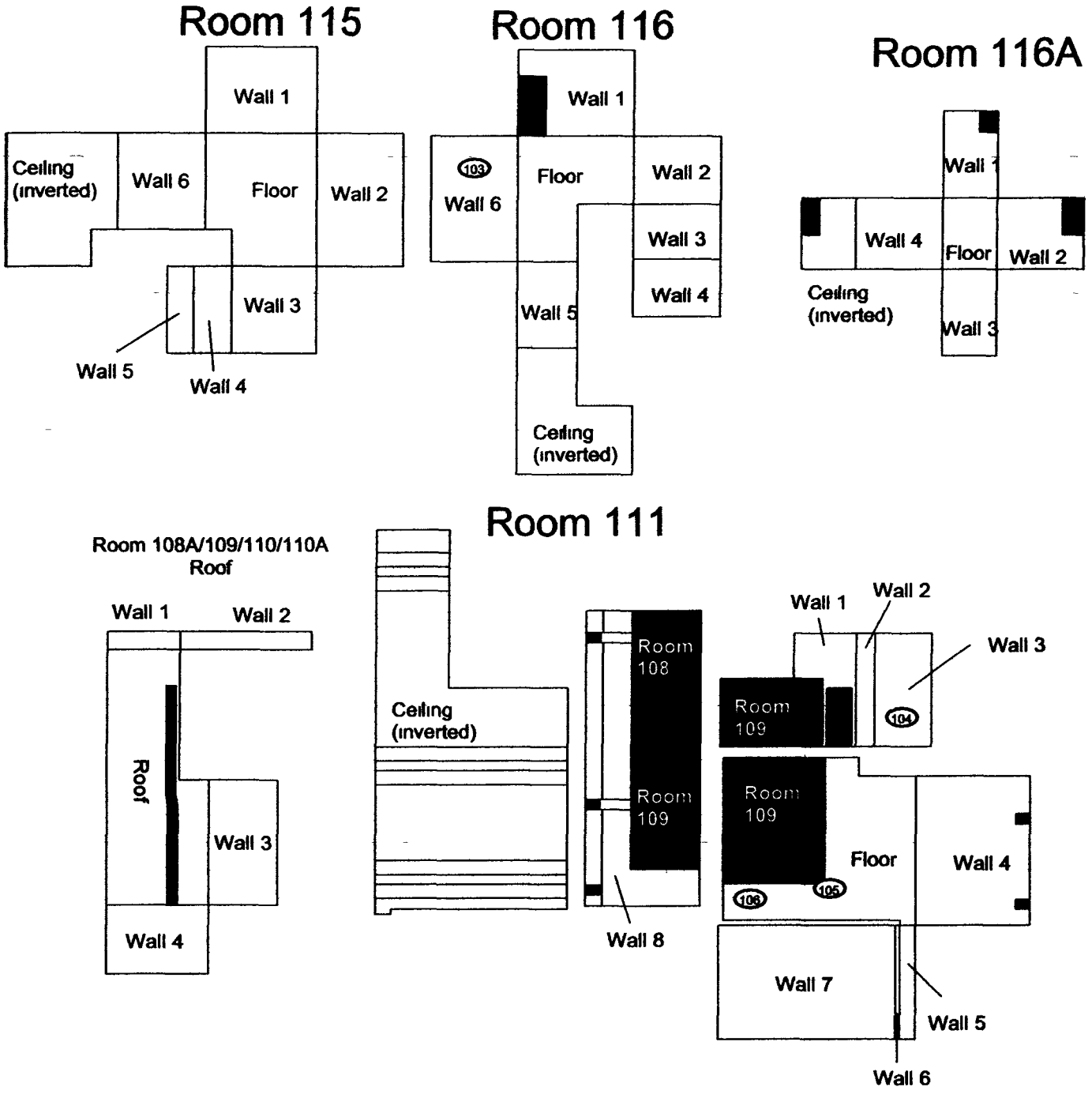
CHEMICAL SAMPLE MAP

Building: 112 Interior



SURVEY MAP LEGEND

- Asbestos Sample Location
- Beryllium Sample Location
- Lead Sample Location
- RCRA/CERCLA Sample Location
- PCB Sample Location
- Open/Inaccessible Area
- Area in Another Survey Unit

N

0 FEET 25

0 METERS 8

1 inch = 18 feet 1 grid sq = 1 sq m.

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MAP ID 02-0312/112-IN-6-AB September 12, 2002

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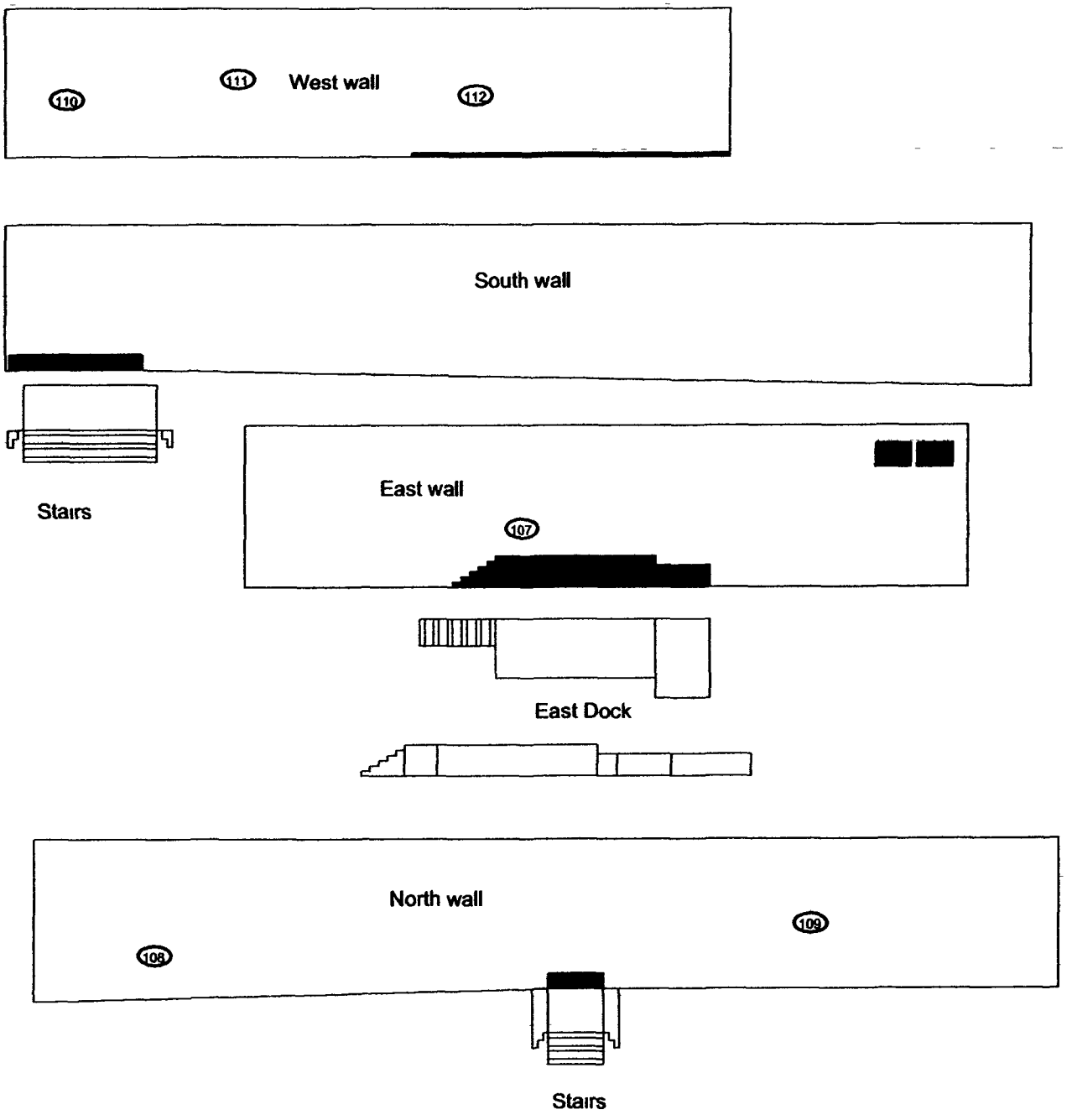
CHEMICAL SAMPLE MAP

Building: 112 Exterior



SURVEY MAP LEGEND

- Asbestos Sample Location
- Beryllium Sample Location
- Lead Sample Location
- RCRA/CERCLA Sample Location
- PCB Sample Location
- Open/Inaccessible Area
- Area in Another Survey Unit

N

0 FEET 25

0 METERS 8

1 inch = 18 feet 1 grid sq = 1 sq m

US Department of Energy
Rocky Flats Environmental Technology Site

Prepared by: GIS Dept. 303-966-7707

Prepared for:

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MAP ID: 02-0312/112-EX-2-AB September 12, 2002

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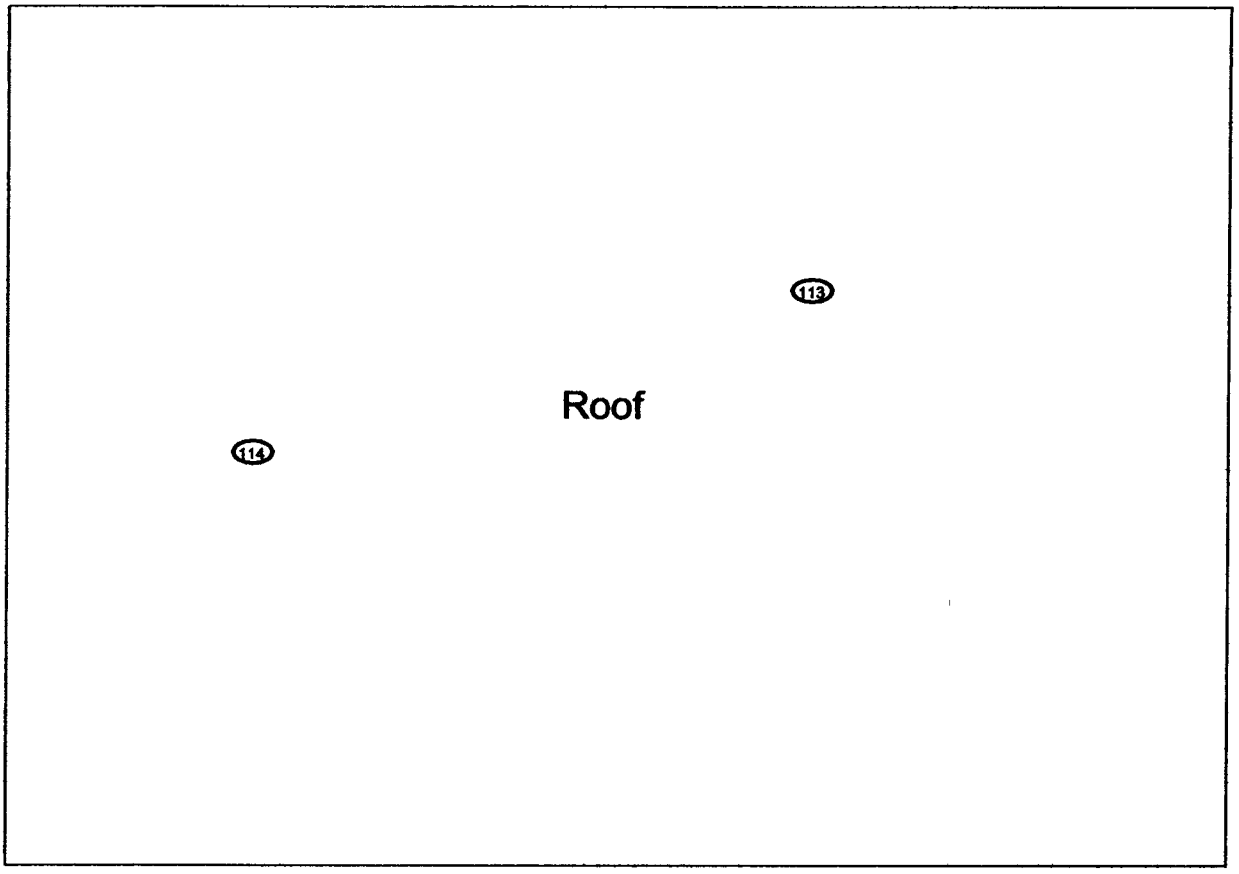
CHEMICAL SAMPLE MAP

Building: 112 Roof



SURVEY MAP LEGEND

- Asbestos Sample Location
- Beryllium Sample Location
- Lead Sample Location
- RCRA/CERCLA Sample Location
- PCB Sample Location
- Open/Inaccessible Area
- Area in Another Survey Unit

N

0 FEET 25

0 METERS 8

1 inch = 18 feet 1 grid sq. = 1 sq. m

U S Department of Energy
Rocky Flats Environmental Technology Site

Prepared by: GIS Dept. 303-966-7707

Prepared for:

DynCorp
THE ART OF TECHNOLOGY

MAP ID: 02-0312/112-EX-1-AB September 12, 2002

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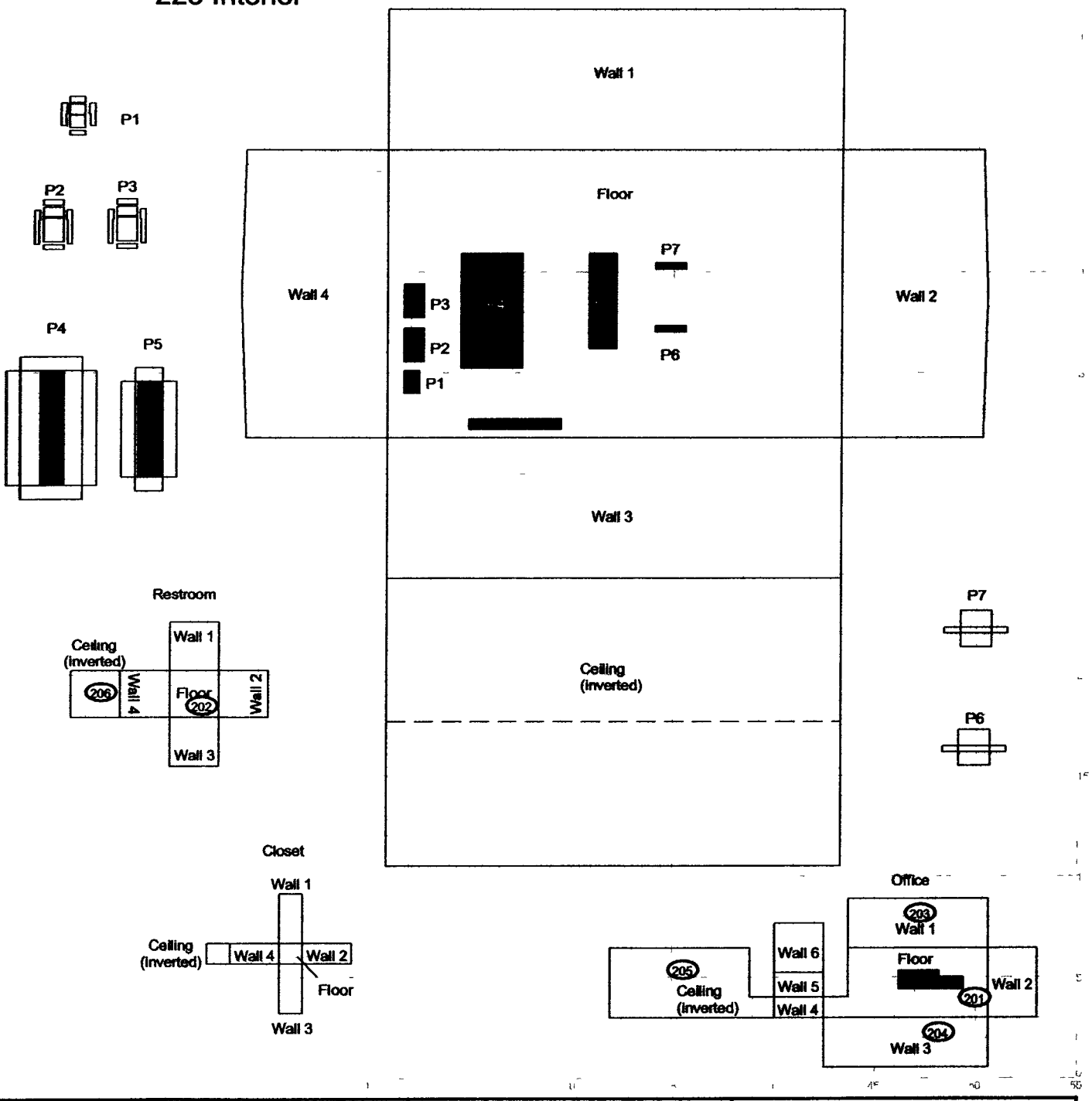
CHEMICAL SAMPLE MAP

Building 223 Interior



SURVEY MAP LEGEND

- Asbestos Sample Location
- Beryllium Sample Location
- Lead Sample Location
- RCRA/CERCLA Sample Location
- PCB Sample Location
- Open/Inaccessible Area
- Area in Another Survey Unit

N

0 FEET 30

0 METERS 10

1 inch = 24 feet 1 grid sq = 1 sq m.

U.S Department of Energy
Rocky Flats Environmental Technology Site

Prepared by: GIS Dept. 303-966-7707

DynCorp
THE ART OF TECHNOLOGY

Prepared for:

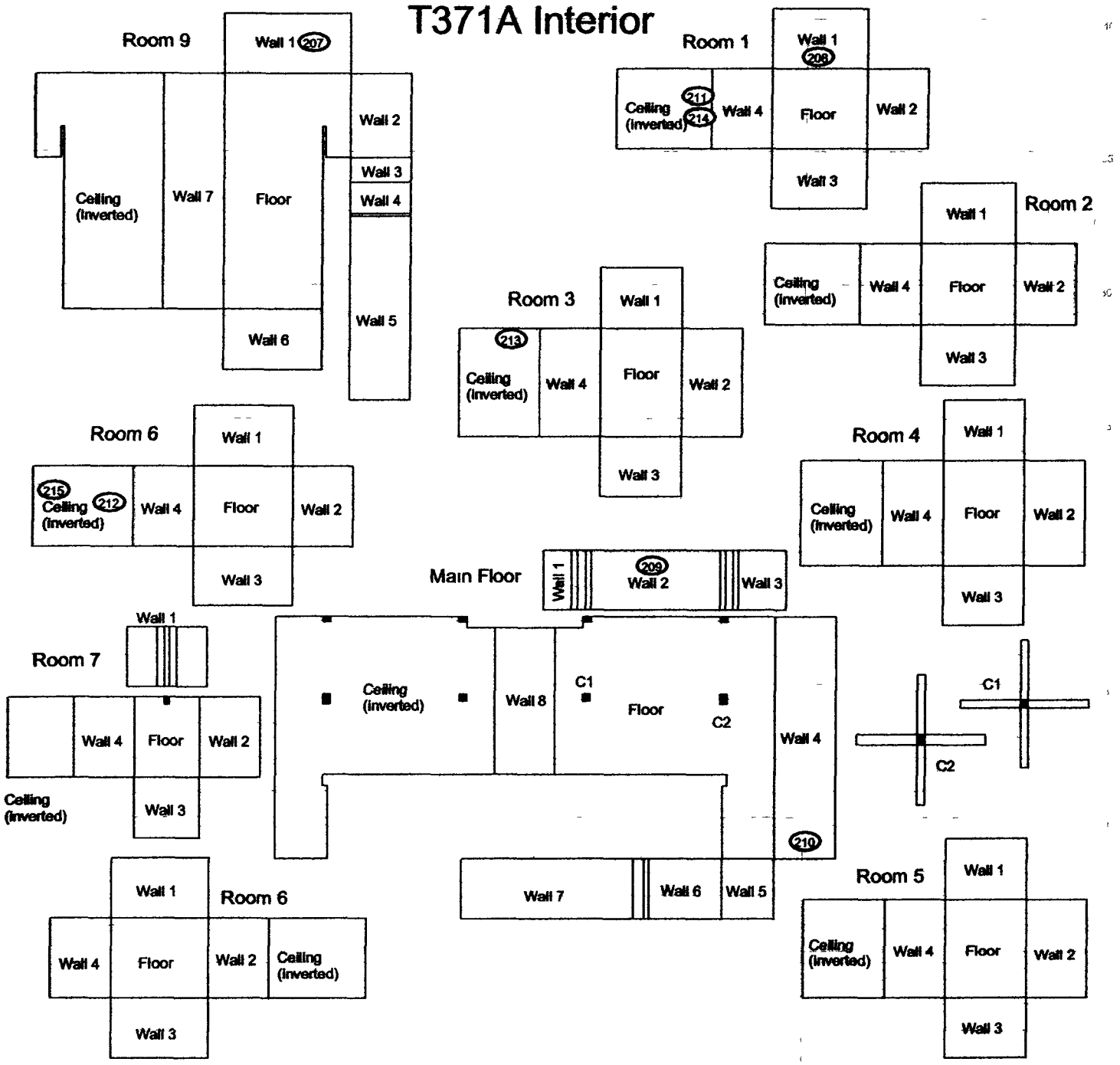
MAP ID: 02-0589/223-IN-ASB

Sept 17, 2002

169

CHEMICAL SAMPLE MAP

Building: T371A



SURVEY MAP LEGEND

- Asbestos Sample Location
- Beryllium Sample Location
- Lead Sample Location
- RCRA/CERCLA Sample Location
- PCB Sample Location
- Open/Inaccessible Area
- Area in Another Survey Unit

N

0 FEET 25

0 METERS 8

1 inch = 18 feet 1 grid sq. = 1 sq m

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Rocky Flats Environmental Technology Site

Prepared by GIS Dept. 303-966-7767 Prepared for

DynCorp
THE ART OF TECHNOLOGY

MAP ID: 02-0589/T371A-IN-AB September 23, 2002

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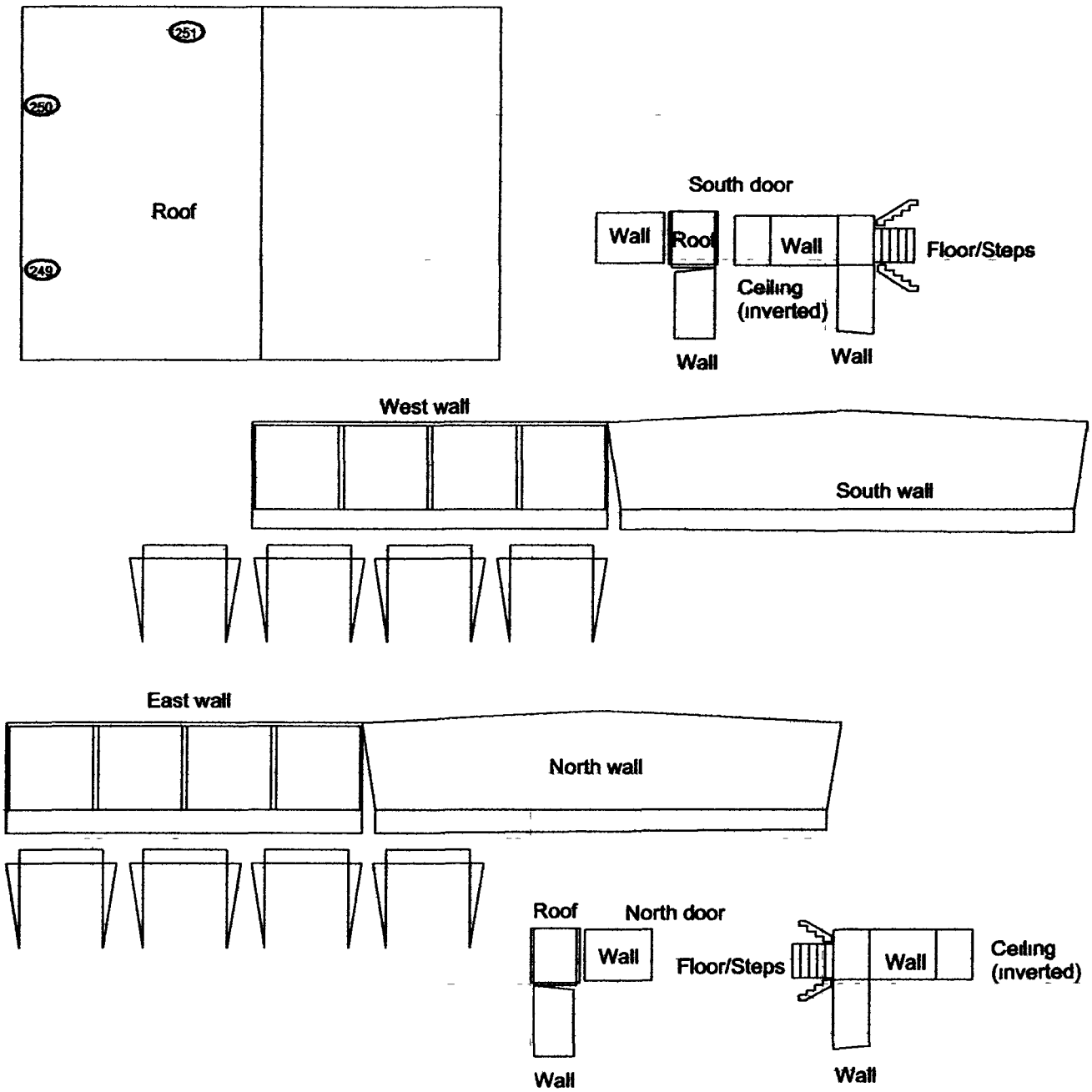
CHEMICAL SAMPLE MAP

Building: T371A

T371A Exterior



SURVEY MAP LEGEND

- Asbestos Sample Location
- Beryllium Sample Location
- Lead Sample Location
- RCRA/CERCLA Sample Location
- PCB Sample Location
- Open/Inaccessible Area
- Area in Another Survey Unit

N

0 FEET 25

0 METERS 8

1 inch = 18 feet 1 grid sq. = 1 sq. m

U S Department of Energy
Rocky Flats Environmental Technology Site

Prepared by: GIS Dept. 303-966-7767

Prepared for:

DynCorp
THE ART OF TECHNOLOGY

MAP ID: 02-0589/T371A-EX-AB September 23, 2002

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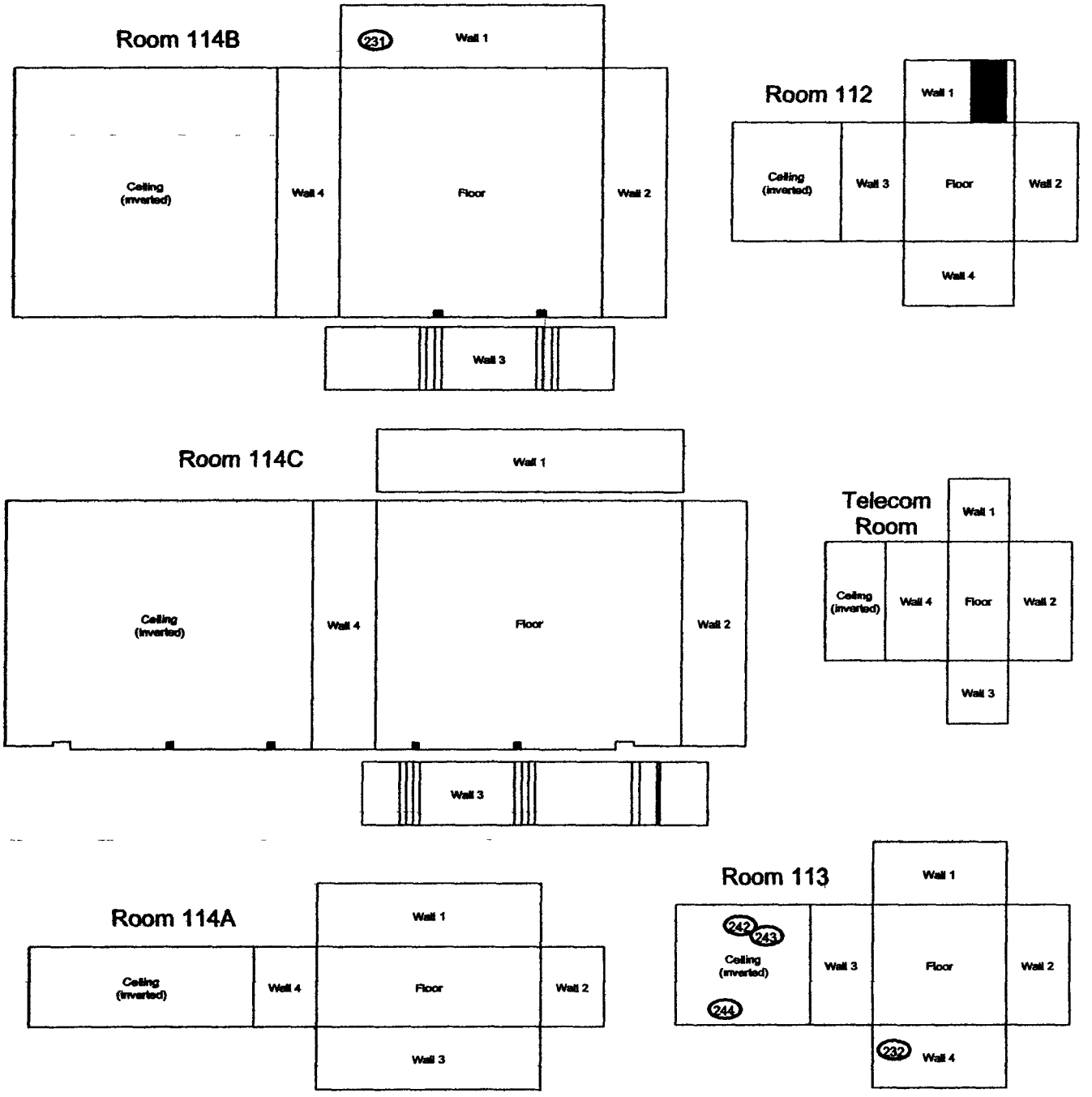
CHEMICAL SAMPLE MAP

Building: T371C



SURVEY MAP LEGEND

- Asbestos Sample Location
- Beryllium Sample Location
- Lead Sample Location
- RCRA/CERCLA Sample Location
- PCB Sample Location
- Open/Inaccessible Area
- Area in Another Survey Unit

N

0 FEET 25

0 METERS 8

1 inch = 18 feet 1 grid sq = 1 sq m

U S Department of Energy
Rocky Flats Environmental Technology Site

Prepared by: GIS Dept. 303-966-7707

DynCorp
THE ART OF TECHNOLOGY

Prepared for: [redacted]

MAP ID: 02-0589/T371C-IN2-AB September 23, 2002

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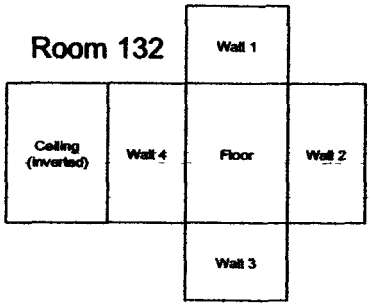
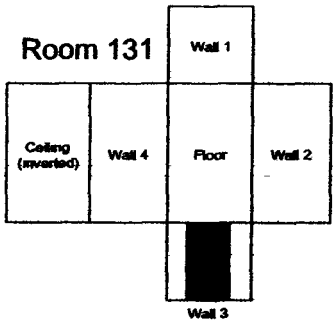
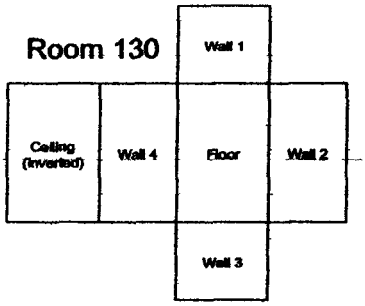
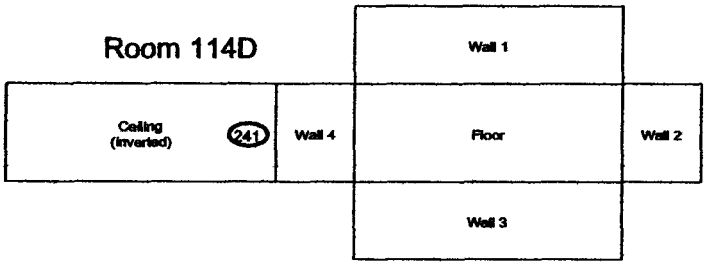
CHEMICAL SAMPLE MAP

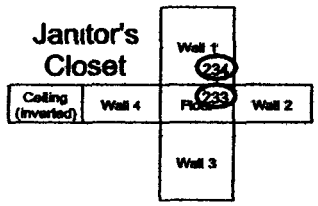
Building: T371C

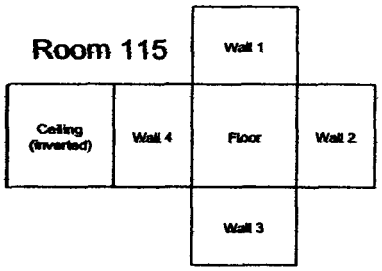


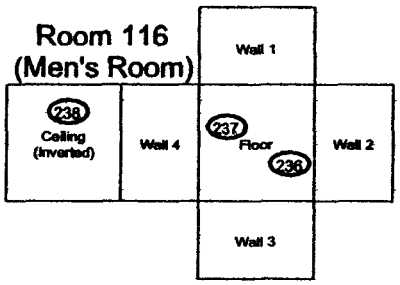


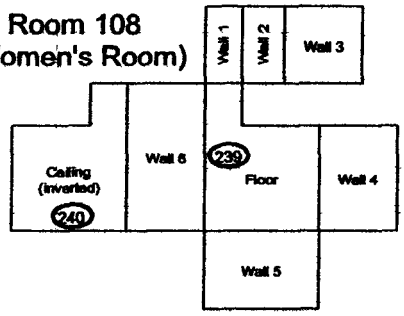


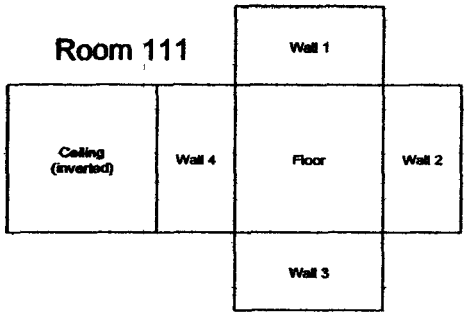


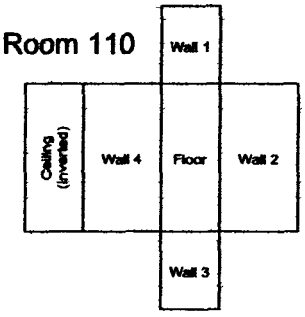


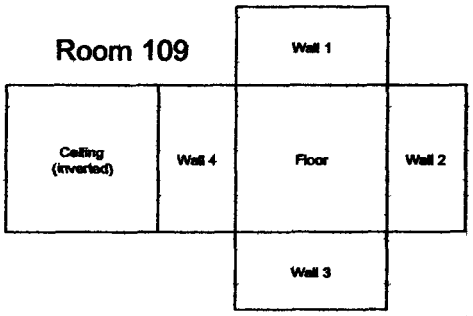












SURVEY MAP LEGEND

- Asbestos Sample Location
- Beryllium Sample Location
- Lead Sample Location
- RCRA/CERCLA Sample Location
- PCB Sample Location
- Open/Inaccessible Area
- Area in Another Survey Unit

N

0 FEET 25

0 METERS 8

1 inch = 18 feet 1 grid sq. = 1 sq. m.

U S Department of Energy
Rocky Flats Environmental Technology Site

Prepared by: GIS Dept. 303-966-7767

Prepared for: [redacted]

DynCorp
THE ART OF TECHNOLOGY

MAP ID: 02-0569/T371C-IN3-All/September 23, 2002

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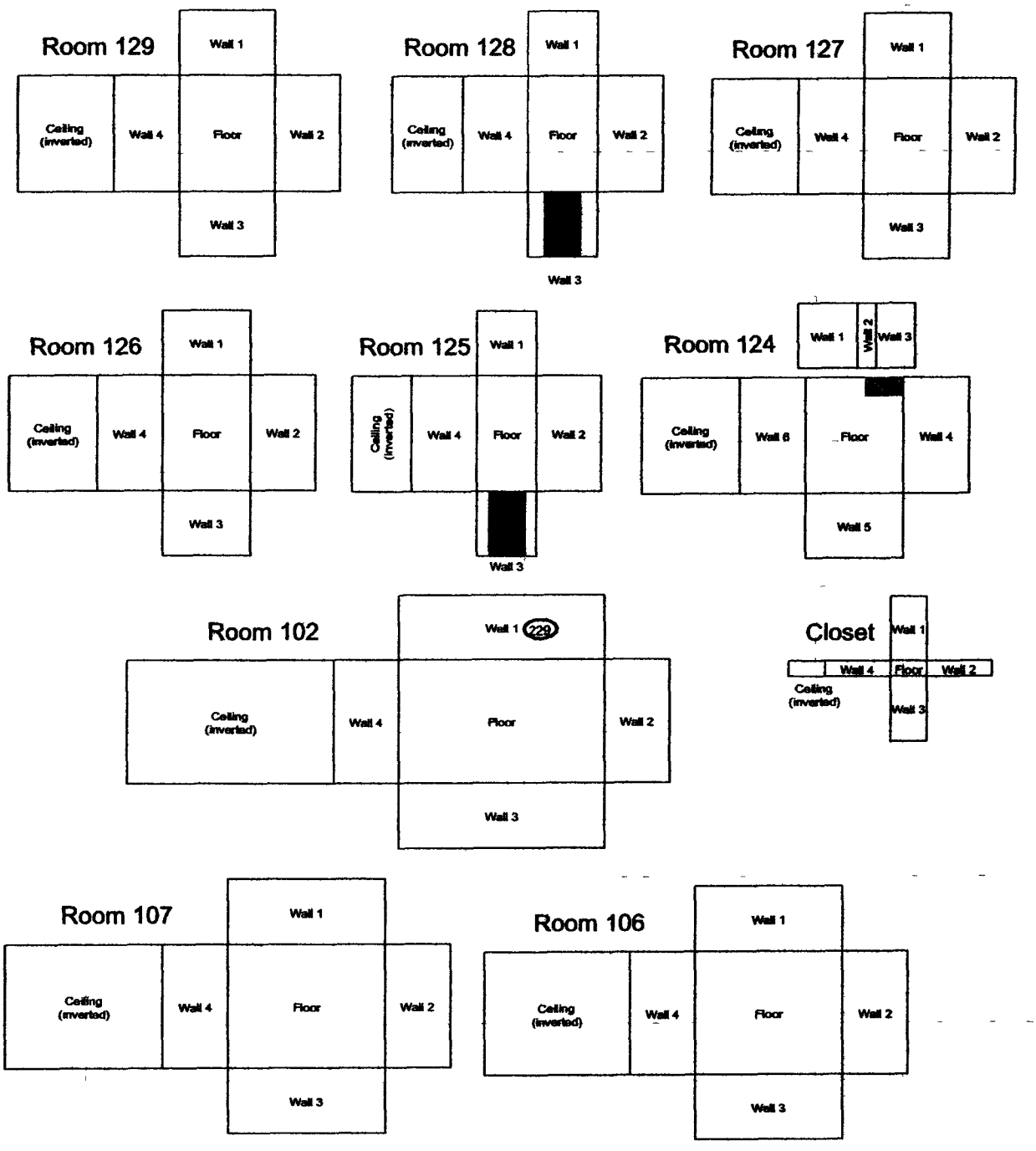
CHEMICAL SAMPLE MAP

Building: T371C



SURVEY MAP LEGEND

- Asbestos Sample Location
- Beryllium Sample Location
- Lead Sample Location
- RCRA/CERCLA Sample Location
- PCB Sample Location
- Open/Inaccessible Area
- Area in Another Survey Unit

N

0 FEET 25

0 METERS 8

1 inch = 18 feet 1 grid sq. = 1 sq. m.

U.S Department of Energy
Rocky Flats Environmental Technology Site

Prepared by: GIS Dept. 303-966-7707

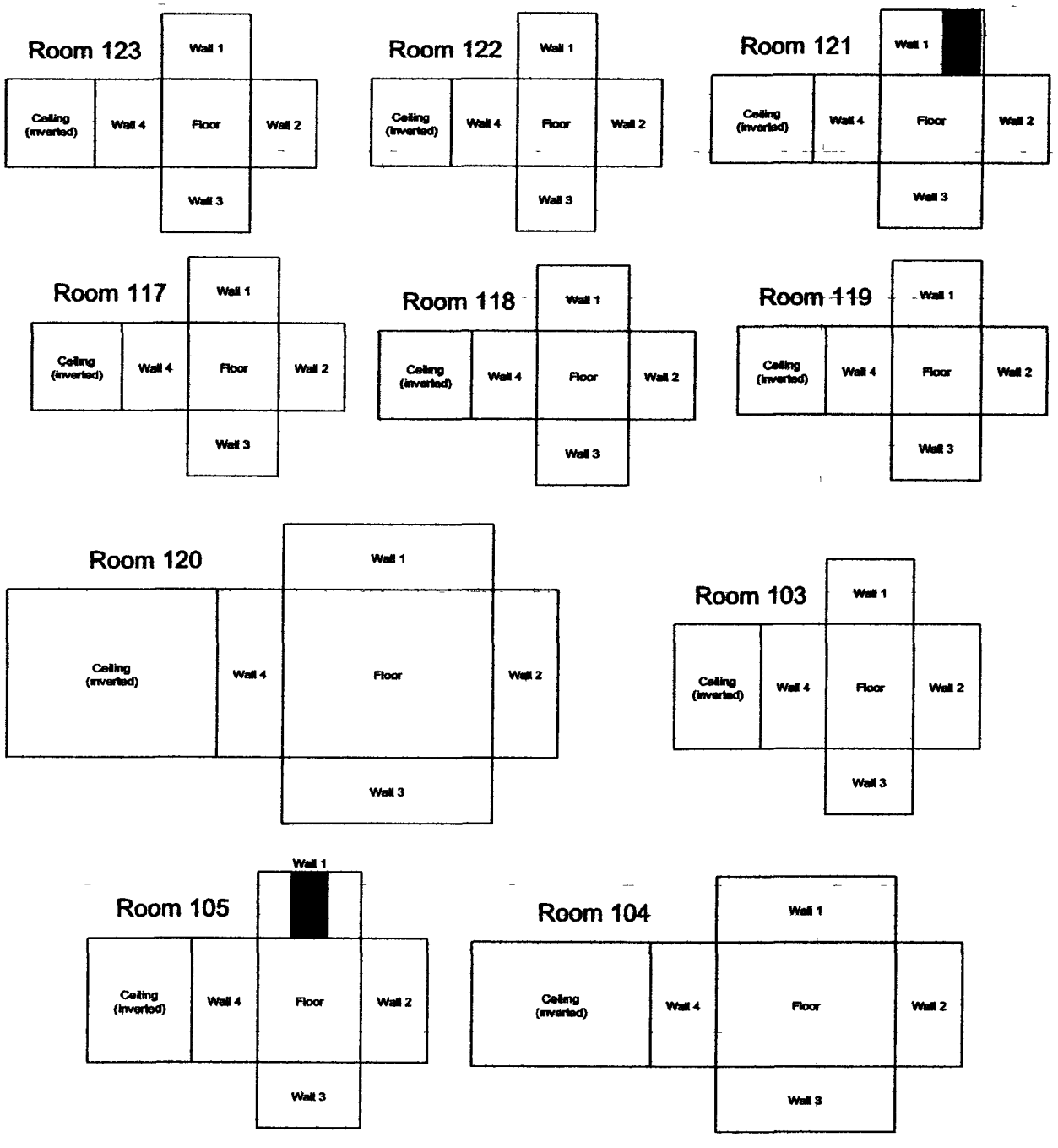
Prepared for:

DynCorp
THE ART OF TECHNOLOGY

MAP ID: 02-0589/T371C-IN4-All/September 23, 2002

CHEMICAL SAMPLE MAP

Building: T371C



SURVEY MAP LEGEND

- Asbestos Sample Location
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- RCRA/CERCLA Sample Location
- PCB Sample Location
- Open/Inaccessible Area
- Area in Another Survey Unit

N

0 FEET 25

0 METERS 8

1 inch = 18 feet 1 grid sq. = 1 sq. m.

U S Department of Energy
Rocky Flats Environmental Technology Site

Prepared by: GIS Dept. 303-966-7707 Prepared for:

DynCorp
THE ART OF TECHNOLOGY

[redacted]

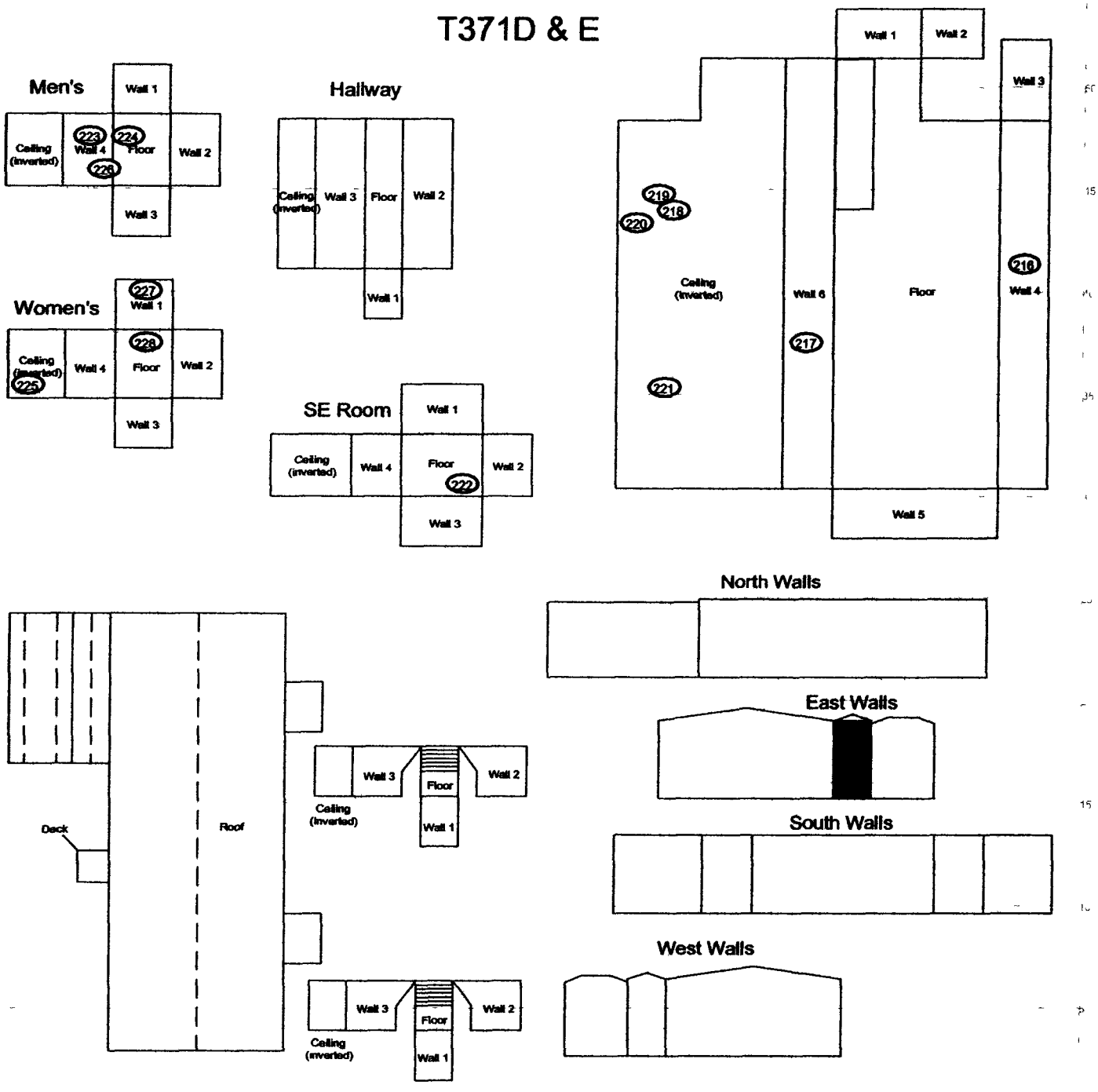
MAP ID 02-0569/T371C-IN5-A September 23, 2002

176

CHEMICAL SAMPLE MAP

Building: T371D

T371D & E



SURVEY MAP LEGEND

- Asbestos Sample Location
- Beryllium Sample Location
- Lead Sample Location
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- PCB Sample Location
- Open/Inaccessible Area
- Area in Another Survey Unit

N

0 FEET 30

0 METERS 10

1 inch = 24 feet 1 grid sq = 1 sq m.

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Rocky Flats Environmental Technology Site

Prepared by GIS Dept. 303-966-7707

Prepared for

DynCorp
THE ART OF TECHNOLOGY

MAP ID 02-0589/T371D-E-AB September 23, 2002

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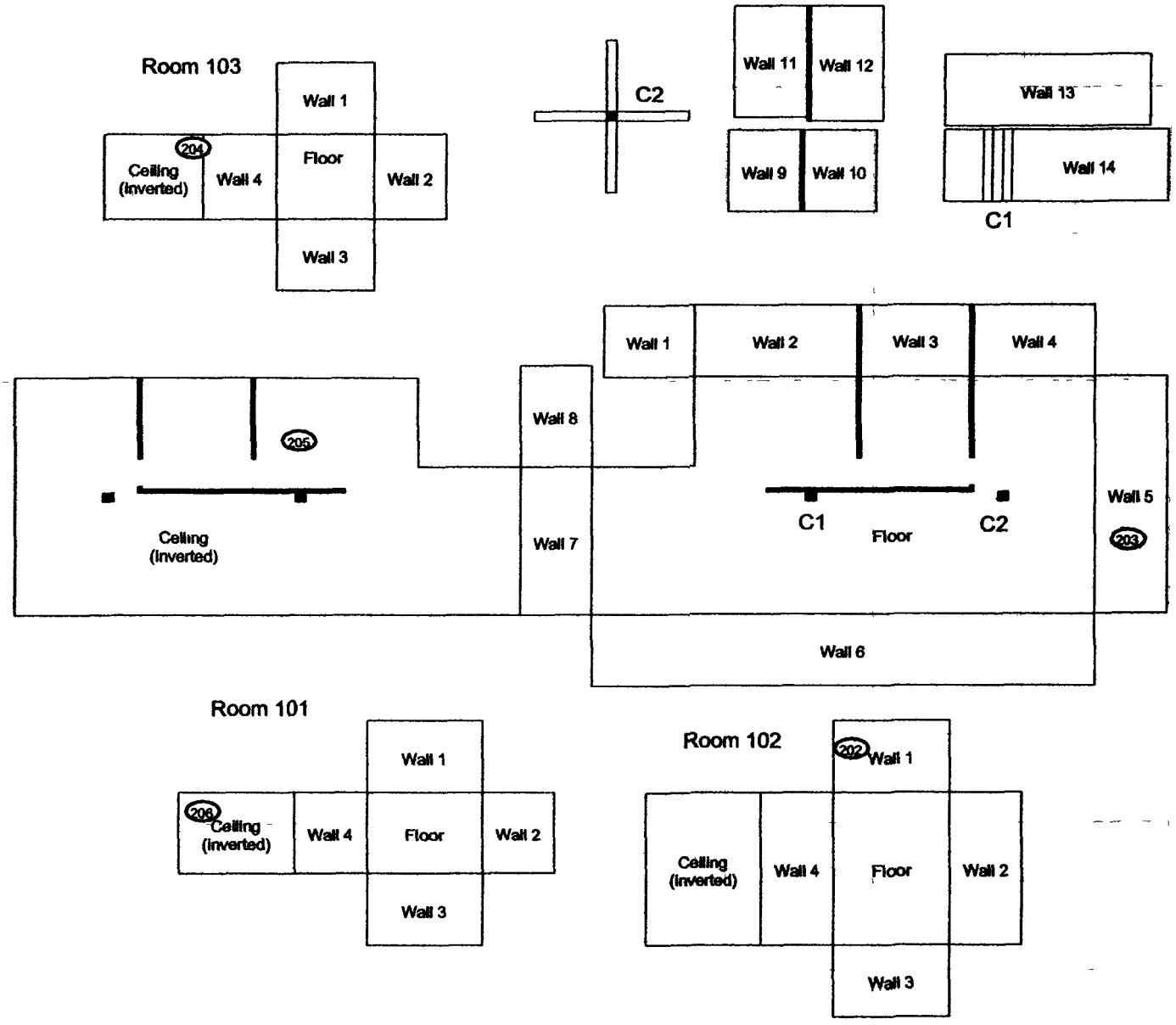
CHEMICAL SAMPLE MAP

Building: T371F

T371F Interior

Main Floor



SURVEY MAP LEGEND

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0 FEET 25

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1 inch = 18 feet 1 grid sq. = 1 sq m

U S Department of Energy
Rocky Flats Environmental Technology Site

Prepared by: GIS Dept. 303-966-7707

Prepared for:

DynCorp
THE ART OF TECHNOLOGY

MAP ID: 02-0589/T371F-IN-AB September 23, 2002

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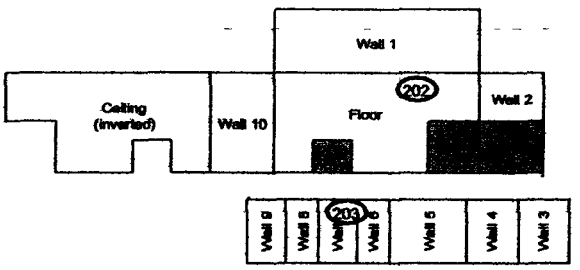
CHEMICAL SAMPLE MAP

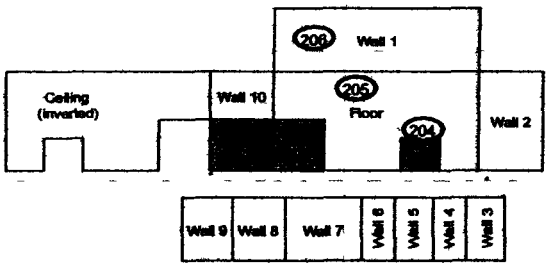
Building: T760A

T760A Interior

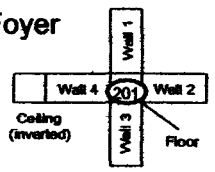
Men's Room



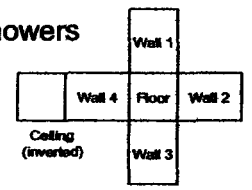
Women's Room



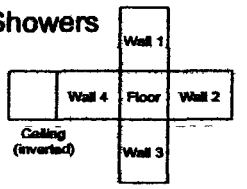
Foyer



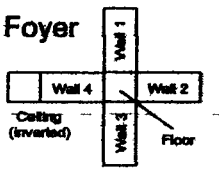
Showers



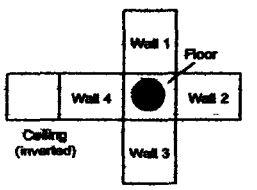
Showers

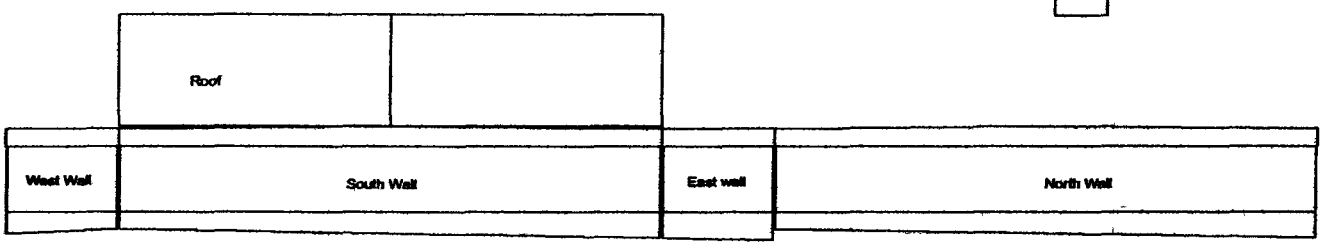


Foyer

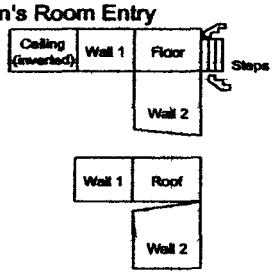


Utility Room

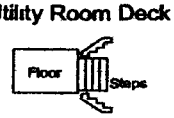




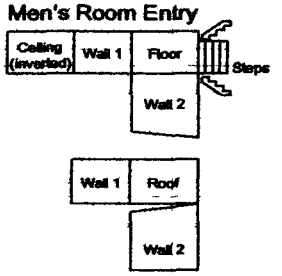
Men's Room Entry



Utility Room Deck



Men's Room Entry



T760A Exterior

SURVEY MAP LEGEND

- Asbestos Sample Location
- Beryllium Sample Location
- Lead Sample Location
- RCRA/CERCLA Sample Location
- PCB Sample Location
- Open/Inaccessible Area
- Area in Another Survey Unit

N

0 FEET 30

0 METERS 10

1 inch = 24 feet 1 grid sq = 1 sq m.

U.S Department of Energy
Rocky Flats Environmental Technology Site

Prepared by: GIS Dept. 303-966-7707

DynCorp
THE ART OF TECHNOLOGY

Prepared for: [redacted]

MAP ID: 02-0912/T760A-ASB

Sept 25, 2002

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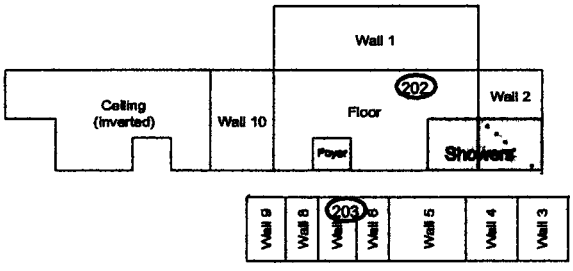
CHEMICAL SAMPLE MAP

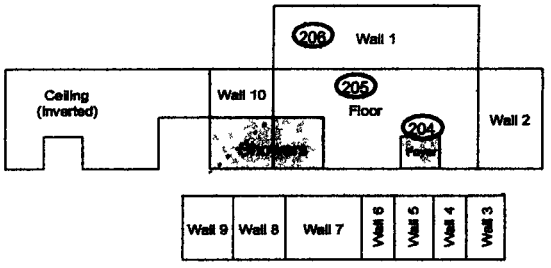
Building: T760A

T760A Interior

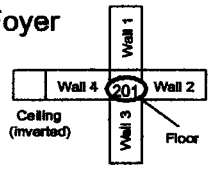
Men's Room



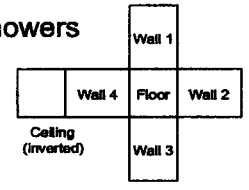
Women's Room



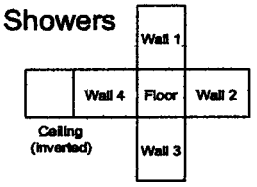
Foyer



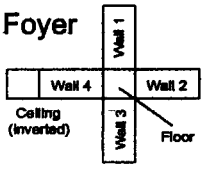
Showers



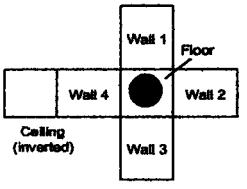
Showers



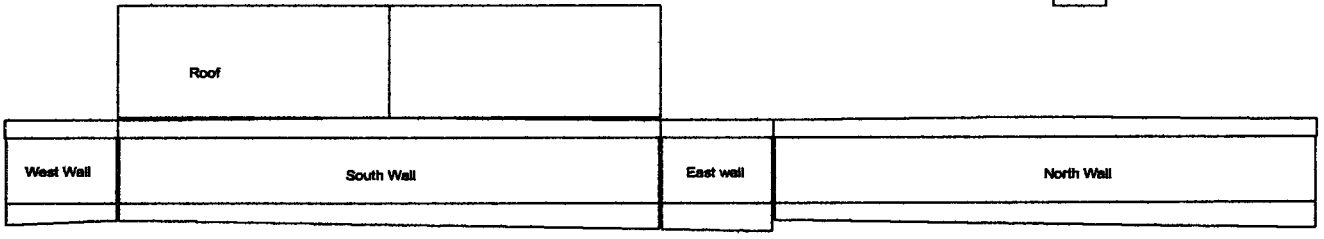
Foyer



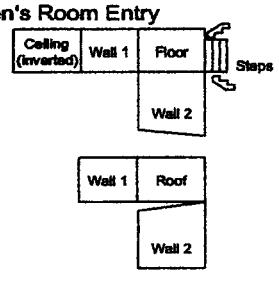
Utility Room



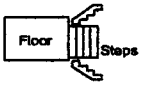
T760A Exterior



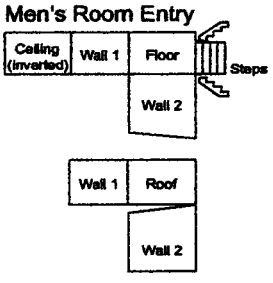
Men's Room Entry



Utility Room Deck



Men's Room Entry



SURVEY MAP LEGEND

- Asbestos Sample Location
- Beryllium Sample Location
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- PCB Sample Location
- Open/Inaccessible Area
- Area in Another Survey Unit

N

0 FEET 30

0 METERS 10

1 inch = 24 feet 1 grid sq = 1 sq m.

U S Department of Energy
Rocky Flats Environmental Technology Site

Prepared by GIS Dept. 303-966-7707

DynCorp
THE ART OF TECHNOLOGY

Prepared for [redacted]

MAP ID: 02-0912/T760A-ASB

Sept 25, 2002

181

ASBESTOS INSPECTION

AND

OPERATIONS AND MAINTENANCE PLAN

FOR

BUILDING 112

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE

GOLDEN, COLORADO

SECTION I

(INTRODUCTION, METHODOLOGY, ASBESTOS INSPECTION)

PREPARED FOR

U.S. DEPARTMENT OF ENERGY
ROCKY FLATS FIELD OFFICE, BUILDING B131
P.O BOX 928
GOLDEN, COLORADO 80402

PROJECT NO. 108230

APRIL 22, 1996

SITEX
Environmental, Inc

11905 Borman Drive
St Louis MO 63146

(314) 569-1119

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SITEX

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Section II

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Section III

SITEX

INTRODUCTION

SITEX Environmental, Inc (SITEX) was retained by the U S Department of Energy, Rocky Flats Field Office in Golden, Colorado to conduct an asbestos inspection and develop an operations and maintenance plan (O&M) for Building 112 located at the Rocky Flats Environmental Technology Site on U S Highway 93 in Golden, Colorado This site is presently an industrial complex which was formerly used to manufacture nuclear weapons

The asbestos inspection and O&M plan preparation was conducted in accordance with applicable asbestos regulations of the Occupational Safety and Health Administration (OSHA) and U S Environmental Protection Agency (EPA) Pertinent OSHA asbestos regulations are contained in Title 29 of the Code of Federal Regulations (CFR), Parts 1910 1001 and 1926 1101 EPA asbestos regulations adhered to were based on by the Asbestos School Hazard Abatement Reauthorization Act (ASHARA) which amended the Asbestos Hazard Emergency Response Act (AHERA) or Title II of the Toxic Substance Control Act (TSCA) to extend training and accreditations described in the asbestos Model Accreditation Plan (MAP) to public and commercial buildings AHERA was originally mandated to address asbestos-containing building materials located in public and private schools grades kindergarten through 12th Regulations concerning ASHARA, AHERA and MAP are found in Title 40 of the CFR Part 763 OSHA and EPA regulations are presented in Appendices A through E

The asbestos inspection included the collection of bulk material samples of all suspect asbestos-containing materials in the form of surfacing materials, thermal system insulation and miscellaneous materials The sampled materials are identified by space locations, area descriptions, sample numbers, photographic numbers and bulk material sample results Asbestos-containing materials are further defined by material classification with a recommended response actions Bulk sample results and a photographic log contain the percent and type of asbestos found in sampled materials and the photograph number of the photograph depicting the sampled material Also presented are potential exposure concerns and a drawing indicating asbestos-containing materials

The O&M plan contains procedures to allow qualified asbestos personnel to properly address small-scale, short duration asbestos projects and record keeping forms to assist in documenting abatement projects conducted by qualified contractors The projects would encompass asbestos removal, repair, encapsulation, enclosure or an emergency response or scheduled maintenance procedure

This document, particularly the O&M plan, requires continual updating and record keeping by a qualified designated person of all activities related to asbestos-containing material and a current evaluation of their present and future exposure potentials Material condition and potential for damage could change significantly with time The owner is required to periodically reinspect the asbestos-containing materials or presumed asbestos-containing materials found in this building due to the potential changes in material condition The qualified designated person should also ensure that all information is in accordance with current asbestos regulations Regulations found in OSHA, EPA and the State of Colorado publications shall take precedence over this document at all times

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METHODOLOGY

Building 112 was inspected for suspect asbestos-containing materials which included surfacing materials, thermal system insulation and miscellaneous materials Each material was identified by space number, quantified and then assessed for condition Bulk material samples were collected of each suspect material utilizing AHERA and OSHA sampling protocols Homogeneous determinations were made for asbestos-containing thermal system insulation, which extended into more than one building space All other materials (surfacing and miscellaneous) were described for each building space which eliminated the need to identify homogeneous spaces The advantage of this strategy was to allow the users of this report immediate information regarding the asbestos-containing materials in any given space and not have to rely on a group of functional spaces which would define a homogeneous area

Bulk material samples of suspect asbestos-containing materials were analyzed by polarized light microscopy (PLM) analysis with dispersion staining (DS) using EPA Method 600 IR-93/116 which is the present analytical method recommended by EPA Analysis was performed by International Asbestos Testing Laboratory (IATL) located at 16000 Horizon Way, Unit 100 in Mount Laurel, New Jersey IATL is accredited or approved by the National Institute of Science and Technology-National Voluntary Laboratory Accreditation Program (NIST-NVLAP), American Industrial Hygiene Association (AIHA) and Proficiency Analytical Testing (PAT) program Laboratory analysis and qualifications for IATL are presented in Appendix F

The O&M plan was developed using a combination of OSHA regulations and industry standards which are published in a variety of EPA documents Recommended response actions were determined according to asbestos material condition, whether it was friable and its potential for present and future release of asbestos fibers The adopted rating system was based on a subjective evaluation which included "low", "moderate" and "high" priority Low would indicate a priority of concern less than moderate or high Moderate would indicate a priority of concern higher than low and less than high and so on for high Some ratings were also presented as a combination of low, moderate and high such as low to moderate or moderate to high

ASBESTOS INSPECTION

The findings of the asbestos inspection and assessment determinations for at Building 112 are documented on the Space Inventory and Recommended Response Action form, the Bulk Sample Results and Photographic Log form and the Present and Future Exposure Potential forms

Space Inventory and Recommended Response Action Form

The Space Inventory and Recommended Response Action form includes the space number, asbestos material, material classification, approximate quantity, material condition and recommended response action The **space number** indicates the area which was inspected for suspect asbestos-containing materials **Asbestos materials** refer to the confirmed asbestos-containing materials which were in the inspected space **Material classification** describes whether the asbestos material

ASBESTOS INSPECTION (CONT.)

Space Inventory and Recommended Response Action Form (Cont.)

was friable, Category I nonfriable or Category II nonfriable which are defined in Section II of this report The **approximate quantity** indicates the amount of the particular asbestos material present in a space **Present condition** indicates the present condition of the asbestos material and the type and amount of damage, if any The **recommended response action** was based on material classification and present condition The recommended response action was chosen to minimize fiber exposure to the environment

Bulk Sample Results and Photographic Log Form

The Bulk Sample Results and Photographic Log form is composed of the space number, description of area, sample number, material sampled, photograph number and results The **space number** is the same as previously mentioned The **description of area** provides recognizable names which indicate the activity or function of the space The **sample number** consists of the building number followed by standard counting numbers to indicate a unique sample number **Material sampled** refers to the actual sampled material in a particular space The **photograph number** indicates the photographs taken of bulk material samples and details of building spaces **Results** are the laboratory analysis of the collected bulk material samples

Present and Future Exposure Potential Form

The Present and Future Exposure Potential form consists of headings stating space number, asbestos material, friable, present condition, damage potential and exposure potential Exposure potential is subdivided into headings of present (no response action), future (response action completed), and future (response action not completed) The **space number**, **asbestos material** and **present condition** were previously defined **Friable** warrants a yes or no response based on whether the material is friable or nonfriable **Damage potential** is indicated as low, moderate or high priority which is based on damage from physical contact, material location and deterioration factors such as air movement, vibration and water damage The **exposure potential** also indicated as low, moderate or high is based on the asbestos material, whether it is friable, the present condition and the damage potential Exposure potential is further defined as **present** with no response action being performed and **future** with and without the recommended response action being completed

Inspection Findings

The completed Space Inventory and Recommended Response Action form, Bulk Sample Results and Photographic Log form and Present and Future Exposure Potential form for Building 112 are as follows Also presented is a building drawing which indicates space numbers, asbestos materials present and photograph numbers The photographs which are referred to in the Space Inventory and Recommended Response Action form, the Bulk Sample Results and Photographic Log form and the drawing are presented following the building drawing

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SITEX

BUILDING 112

Space Inventory and Recommended Response Action

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SPACE INVENTORY AND RECOMMENDED RESPONSE ACTION

Building No 112
Location Rocky Flats

Date April 22, 1996

Sylvester B. Douglas
Planner/Inspector's Name

Sylvester Douglas
Signature

[redacted] Management
Management Planner/Inspector ID

Space No.	Asbestos Material	Material Classification	Approximate Quantity	Present Condition	Recommended Response Action
100	Pipe Elbow	Friable	<3 linear feet	No Damage	Operations and Maintenance
101	Piping (above ceiling)	Friable	200 linear feet	unknown	Operations and Maintenance
	Floor Tile/Mastic (9-in beige)	Category I, nonfriable	3,500 square feet	<5 square feet/Damage	Replace
	Floor Tile (9-in peach [2])	Category I, nonfriable	20 square feet	No Damage	Operations and Maintenance
	Mastic (12-in)	Category I, nonfriable	300 square feet	No Damage	Operations and Maintenance
102	Floor Tile	Category I, nonfriable	500 square feet	No Damage	Operations and Maintenance
102A	Floor Tile	Category I, nonfriable	150 square feet	No Damage	Operations and Maintenance
102C	Transite Wall	Category II, nonfriable	150 square feet	No Damage	Operations and Maintenance

SPACE INVENTORY AND RECOMMENDED RESPONSE ACTION

Building No 112 (Cont)
Location Rocky Flats

Date April 22, 1996

Sylvester B. Douglas
Management Planner/Inspector's Name

SD
Signature

[redacted]
Management Planner/Inspector ID

Space No.	Asbestos Material	Material Classification	Approximate Quantity	Present Condition	Recommended Response Action
102D	Floor Tile	Category I, nonfriable	200 square feet	No Damage	Operations and Maintenance
104	Floor Tile/Mastic	Category I, nonfriable	600 square feet	No Damage	Operations and Maintenance
105	Exterior Transite	Category II, nonfriable	25 square feet	No Damage	Operations and Maintenance
105	Piping	Friable	3 linear feet	No Damage	Operations and Maintenance
106/106A	Piping	Friable	20 linear feet	No Damage	Operations and Maintenance
107	Piping	Friable	3 linear feet	Significant Damage	Remove/Operations and Maintenance
107A	Piping	Friable	5 linear feet	No Damage	Operations and Maintenance
107B	Floor Tile	Category I, nonfriable	200 square feet	No Damage	Operations and Maintenance
109A	Transite Walls	Category II, nonfriable	75 square feet	<2 square feet/Damage	Remove/Operations and Maintenance

SPACE INVENTORY AND RECOMMENDED RESPONSE ACTION

Building No 112 (Cont)
Location Rocky Flats

Date April 22, 1996

Sylvester B. Douglas
Management Planner/Inspector's Name

SD
Signature

[redacted]
Management Planner/Inspector ID

Space No.	Asbestos Material	Material Classification	Approximate Quantity	Material Condition	Recommended Response Action
109A (Cont)	Vibration Isolators	Category II, nonfriable	20 square feet	No Damage	Operations and Maintenance
109A	Duct Insulation	Friable	25 square feet	<2 linear feet/Damage	Repair/Operations and Maintenance
111	Piping	Friable	4 linear feet	2 ln ft /Damage, Significant Damage	Remove/Operations and Maintenance
111	Floor Tile	Category I, nonfriable	270 square feet	No Damage	Operations and Maintenance
112	Floor Tile	Category I, nonfriable	400 square feet	No Damage	Operations and Maintenance
115	Pipe elbow/fittings (above ceiling)	Friable	unknown	Significant Damage	Remove/Operations and Maintenance
115	Transite Panel	Category II, nonfriable	4 square feet	No Damage	Operations and Maintenance
116	Piping	Friable	6 linear feet	No Damage	Operations and Maintenance

SPACE INVENTORY AND RECOMMENDED RESPONSE ACTION

Building No 112 (Cont)
Location Rocky Flats

Date April 22, 1996

Sylvester B. Douglas
Management Planner/Inspector's Name

SD
Signature

[redacted]
Management Planner/Inspector ID

Space No.	Asbestos Material	Material Classification	Approximate Quantity	Material Condition	Recommended Response Action
116A	Duct Insulation	Friable	350 square feet	<10 square feet/Damage	Operations and Maintenance
Tunnel	Suspect Piping	Friable	unknown	<5 linear feet/Damage	Repair/Operations and Maintenance
Bldg Ext	Exterior Finish	Category II, nonfriable	3,000 square feet	No Damage	Operations and Maintenance

Asbestos-containing building materials were not found in Spaces 102B, 102D, 108, 108A, 109, 110, 110A, 113, 114 and 114A

SITEX

BUILDING 112

Bulk Sample Results and Photographig Log

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BULK SAMPLE RESULTS AND PHOTOGRAPHIC LOG

Building No 112
Location Rocky Flats

Date April 22, 1996

Space No.	Description of Area	Sample No.	Material Sampled	Photo No.	Results
101	Cafeteria	112-019	9 x 9 floor tile, beige	19	20% Chrysotile, tile 25% Chrysotile, black mastic
101	Cafeteria	112-020	12 x 12 floor tile, beige	20	None Detected, tile 20% Chrysotile, black mastic None Detected, tan mastic
101	Cafeteria	112-021	9 x 9 floor tile, peach	21	1 3% Chrysotile, tile None Detected, lt tan mastic
101	Cafeteria	112-022	9 x 9 floor tile, peach	22	2 5% Chrysotile, tile None Detected, lt tan mastic
101	Cafeteria	112-023	9 x 9 floor tile, gray	23	None Detected, tile None Detected, lt tan mastic
101	Cafeteria	112-024	1 x 1 ceiling tile	24	None Detected
101	Cafeteria	112-025	base molding, south	25	3 5% Chrysotile, molding None Detected, tan mastic
101	Cafeteria	112-026	base molding, west	26	None Detected
101	Cafeteria	112-100	base molding, south	55	4 9% Chrysotile
102	Telecommunication	112-038	floor tile beneath carpet	38	20% Chrysotile, tile None Detected, tan mastic
102A	Office	112-042	wall	42	None Detected

BULK SAMPLE RESULTS AND PHOTOGRAPHIC LOG

Building No 112 (Cont)
Location Rocky Flats

Date April 22, 1996

Space No.	Description of Area	Sample No.	Material Sampled	Photo No.	Results
102B	Office	112-040	floor tile beneath carpet	40	None Detected, tile None Detected, tan mastic
102C	Office	112-036	1 x 1 ceiling tile	36	None Detected
102C	Office	112-037	2 x 4 ceiling tile	37	None Detected
102C	Office	112-039	cementitious wall	39	30% Chrysotile
104	Office	112-041	floor tile beneath carpet	41	20% Chrysotile 2 1% Chrysotile, tan/blk masti
105	North Entrance	112-018	cementitious panel	18	25% Chrysotile
106	Kitchen	112-001	skid pad	1	None Detected
106	Kitchen	112-002	pipe, dcw	2	25% Amosite, 25% Chrysotile
106	Kitchen	112-003	wall	3	None Detected
106	Kitchen	112-004	wall	4	None Detected
106A	Storage		tunnel	53	
106A	Storage		tunnel looking east	54	

BULK SAMPLE RESULTS AND PHOTOGRAPHIC LOG

Building No 112 (Cont)
Location Rocky Flats

Date April 22, 1996

Space No.	Description of Area	Sample No.	Material Sampled	Photo No.	Results
107	Switch Room	112-031	12 x 12 floor tile, beige	31	None Detected, tile None Detected, tan mastic
107	Switch Room	112-032	vibration isolator	32	None Detected
107	Switch Room	112-033	wall	33	None Detected
107A	Data Room	112-034	ceiling	34	None Detected
107A	Data Room	112-035	pipe, steam	35	2% Chrysotile, 15% Amosite
107B	Office	112-030	12 x 12 floor tile, beige	30	5 8% Chrysotile, tile None Detected, tan mastic
109	Storage (Cooler)	112-043	ceiling	43	None Detected
109	Ceiling Coolers		cementitious	48	
109	Ceiling Coolers		cementitious	49	
109A	Area Above Coolers	112-102	pipe insulation, dcw	57	None Detected
110	Storage (Cooler)	112-044	wall	44	None Detected

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BULK SAMPLE RESULTS AND PHOTOGRAPHIC LOG

Building No 112 (Cont)
Location Rocky Flats

Date April 22, 1996

Space No.	Description of Area	Sample No.	Material Sampled	Photo No.	Results
111	Dock Area	112-013	12 x 12 floor tile, beige	13	1 8% Chrysotile, tile None Detected, black mastic
111	Dock Area	112-014	pipe, steam	14	25% Amosite, 1% Chrysotile
111	Dock Area	112-015	cementitious panels	15	25% Chrysotile
111	Dock Area	112-016	duct insulation	16	30% Chrysotile
111	Dock Area	112-017	vibration isolator	16	40% Chrysotile
112	Telecommunications	112-027	2 x 4 ceiling tile	27	None Detected
112	Telecommunications	112-028	drywall (mud and tape included)	28	None Detected
112	Telecommunications	112-029	flooring beneath carpet	29	1 8 Chrysotile, tile None Detected, tan mastic
113	Mechanical/Electrical Room Tunnel Entrance			58	
113	Mechanical/Electrical Room Tunnel, Looking South			59	
113	Mechanical/Electrical Room Tunnel, Looking North			60	
113	Mechanical/Electrical Room Tunnel, Looking West			61	
114	Men's Rest Room	112-005	wall	5	None Detected

BULK SAMPLE RESULTS AND PHOTOGRAPHIC LOG

Building No 112 (Cont)
Location Rocky Flats

Page No 5
Date April 22, 1996

Space No.	Description of Area	Sample No.	Material Sampled	Photo No.	Results
114 (Cont)	Men's Rest Room	112-006	ceiling	6	None Detected
114A	Pipe Chase	112-007	pipe riser, dcw	7	None Detected
114A	Pipe Chase	112-101	pipe riser, dcw	56	Trace Chrysotile
115	Women's Rest Room	112-008	cementitious access panel, ceiling	8	40% Chrysotile
115	Women's Rest Room	112-009	12 x 12 floor tile, beige	9	None Detected, tile None Detected, black mastic
115	Women's Rest Room	112-010	plaster ceiling	10	None Detected
116	Mechanical Area	112-011	pipe, condensate steam	11	25% Amosite, 10% Chrysotile
116A	Electrical Room	112-012	duct insulation	12	45% Chrysotile
NA	Exterior Building	112-045	exterior finish	45	1 8% Chrysotile
NA	Exterior Building	112-103	exterior finish, south side	45	None Detected
NA	Exterior Building	112-104	exterior finish, east side	45	None Detected

Asbestos inspeciton, assessment and sampling have been conducted by an EPA and state of Colorado accredited inspector in accordance with 40 CFR 763, who has completed an approved course under the Asbestos Hazard Emergency Response Act (AHERA)

[redacted]
Certification No.

Sylvester B. Douglas
Name

Sylvester Douglas
Signature of Inspector ~~Inspector's~~

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BULK SAMPLE RESULTS AND PHOTOGRAPHIC LOG

Building No 112 (Cont)
Location Rocky Flats

Date April 22, 1996

Space No.	Description of Area	Sample No.	Material Sampled	Photo No.	Results
111	Dock Area	112-013	12 x 12 floor tile, beige	13	1 8% Chrysotile, tile None Detected, black mastic
111	Dock Area	112-014	pipe, steam	14	25% Amosite, 1% Chrysotile
111	Dock Area	112-015	cementitious panels	15	25% Chrysotile
111	Dock Area	112-016	duct insulation	16	30% Chrysotile
111	Dock Area	112-017	vibration isolator	16	40% Chrysotile
112	Telecommunications	112-027	2 x 4 ceiling tile	27	None Detected
112	Telecommunications	112-028	drywall (mud and tape included)	28	None Detected
112	Telecommunications	112-029	flooring beneath carpet	29	1 8 Chrysotile, tile None Detected, tan mastic
114	Men's Rest Room	112-005	wall	5	None Detected
114	Men's Rest Room	112-006	ceiling	6	None Detected
114A	Pipe Chase	112-007	pipe riser, dcw	7	None Detected
114A	Pipe Chase	112-101	pipe riser, dcw	56	Trace Chrysotile
115	Women's Rest Room	112-008	cementitious access panel, ceiling	8	40% Chrysotile

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BULK SAMPLE RESULTS AND PHOTOGRAPHIC LOG

Building No 112 (Cont)
Location Rocky Flats

Page No 5
Date April 22, 1996

Space No.	Description of Area	Sample No.	Material Sampled	Photo No.	Results
115 (Cont)	Women's Rest Room	112-009	12 x 12 floor tile, beige	9	None Detected, tile None Detected, black mastic
115	Women's Rest Room	112-010	plaster ceiling	10	None Detected
116	Mechanical Area	112-011	pipe, condensate steam	11	25% Amosite, 10% Chrysotile
116A	Electrical Room	112-012	duct insulation	12	45% Chrysotile
NA	Exterior Building	112-045	exterior finish	45	1 8% Chrysotile
NA	Exterior Building	112-103	exterior finish, south side	45	None Detected
NA	Exterior Building	112-104	exterior finish, east side	45	None Detected

Asbestos inspeciton, assessment and sampling have been conducted by an EPA and state of Colorado accredited inspector in accordance with 40 CFR 763, who has completed an approved course under the Asbestos Hazard Emergency Response Act (AHERA)

[redacted] Sylvester B Douglas

Certification No. **Name** **Signature of Inspector** **Inspector's**

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BULK SAMPLE RESULTS AND PHOTOGRAPHIC LOG

Building No 112
Location Rocky Flats

Date January 6, 1997

Space No.	Description of Area	Sample No.	Material Sampled	Photo No.	Results
Exterior	Roof	112-200	roof		None Detected
	Roof	112-201	roof flashing		None Detected

Asbestos inspection, assessment and sampling have been conducted by an EPA and state of Colorado accredited inspector in accordance with 40 CFR 763, who has completed an approved course under the Asbestos Hazard Emergency Response Act (AHERA)

[redacted] Sylvester B. Douglas Sylvester Douglas

Inspector's Certificate No. **Name** **Signature of Inspector**

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IATL International Asbestos Testing Laboratories

16000 Horizon Way Unit 100 Mt. Laurel, NJ 08054
Telephone 609-231-9449 Fax: 609-231-9818

CERTIFICATE OF ANALYSIS

Client: Sitex Environmental, Inc
11905 Borman Drive
St Louis MO 63146

Report Date: 07/31/1996
Project: DOE RockyFlats,108230,7-17-96
Project No.. 108230

BULK SAMPLE ANALYSIS SUMMARY

Lab No. 501610 **Material Description** Black/Gray
Client No. 112-200 **Location** Rubber/Roof Material

% Asbestos	Type	% Non-Asbestos Fibrous Material	Type	% Non-Fibrous Material
None Detected	None Detected	5	Synthetic	95

Lab No. 501611 **Material Description** Black/Brown
Client No 112-201 **Location** Rubber/Roof Material

% Asbestos	Type	% Non-Asbestos Fibrous Material	Type	% Non-Fibrous Material
None Detected	None Detected	5	Cellulose	95

Lab No. 501612 **Material Description** Black Roof Material
Client No. 331-200 **Location**

% Asbestos	Type	% Non-Asbestos Fibrous Material	Type	% Non-Fibrous Material
None Detected	None Detected	None Detected	None Detected	100

Lab No. 501613 **Material Description** Black/Silver
Client No. 331-201 **Location** Roof Material

% Asbestos	Type	% Non-Asbestos Fibrous Material	Type	% Non-Fibrous Material
PC 3 3	Chrysotile	10	Fibrous Glass	PC 86 7

NIST-NVLAP No. 1165 **NY-DOH No. 11021** **AIHA Lab No. 444**

[redacted]

Analysis Method EPA 600/R-93/116

Comments (PC) Indicates Stratified Point Count Method performed. Method not performed unless stated. PLM is not consistently reliable in detecting asbestos in floor coverings and similar non-friable organically bound materials. Before this material can be considered or treated as non asbestos containing, confirmation must be made by quantitative TEM

Analysis Performed By: N. Sonny Robb
Date: JUL 2 2 1996 H Sonny Robb, AIHA-AAR 4883

Approved By: Frank E Ehrenfeld
Frank E Ehrenfeld, III
Laboratory Director

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SITEX

BUILDING 112

Present and Future Exposure Potential

PRESENT AND FUTURE EXPOSURE POTENTIAL

Building No 112
Location Rocky Flats

Date April 22, 1996

Sylvester B. Douglas
Planner/Inspector's Name

Sylvester Douglas
Signature

[redacted] Management
Management Planner/Inspector ID

						EXPOSURE POTENTIAL	
						Present	Future
Space No.	Asbestos Material	Friable	Present Condition	Damage Potential	No Response Action	Response Action Completed	Response Action Not Completed
100	Pipe Elbow	Yes	No Damage	Low	Low	Low	Moderate
101	Piping (above ceiling)	Yes	Unknown	Low	Low	Low	Low
101	Floor Tile/Mastic (9-in beige)	No	<5 square feet/Damage	Low	Low	Low	Low
101	Floor Tile (9-in peach [2])	No	No Damage	Low	Low	Low	Low
101	Mastic (12-in)	No	No Damage	Low	Low	Low	Low
102	Floor Tile	No	No Damage	Low	Low	Low	Low
102A	Floor Tile	No	No Damage	Low	Low	Low	Low

PRESENT AND FUTURE EXPOSURE POTENTIAL

Building No 112 (Cont)
Location Rocky Flats

Date April 22, 1996

Sylvester B. Douglas
Management Planner/Inspector's Name

SD
Signature

[redacted]
Management Planner/Inspector ID

					EXPOSURE POTENTIAL		
					Present	Future	
Space No.	Asbestos Material	Friable	Present Condition	Damage Potential	No Response Action	Response Action Completed	Response Action Not Completed
102C	Cementitious Wall	No	No Damage	Low	Low	Low	Low
102D	Floor Tile	No	No Damage	Low	Low	Low	Low
104	Floor Tile/Mastic	No	No Damage	Low	Low	Low	Low
105	Exterior Transite	No	No Damage	Low	Low	Low	Low
	Piping	Yes	No Damage	Low	Low	Low	Moderate
106	Piping	Yes	No Damage	Low to Moderate	Low	Low	Low to Moderate
107	Piping	Yes	Significant Damage	Low	Low to Moderate	Low	Moderate
107A	Piping	No	No Damage	Low	Low	Low	Low
107B	Floor Tile	No	No Damage	Low	Low	Low	Low

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PRESENT AND FUTURE EXPOSURE POTENTIAL

Building No 112 (Cont)
Location Rocky Flats

Date April 22, 1996

Sylvester B. Douglas
Management Planner/Inspector's Name

SD
Signature

[redacted]
Management Planner/Inspector ID

					EXPOSURE POTENTIAL		
					Present	Future	
Space No.	Asbestos Material	Friable	Present Condition	Damage Potential	No Response Action	Response Action Completed	Response Action Not Completed
109A	Cementitious Wall	No	<2 square feet/Damage	Low	Low	Low	Low
109A	Vibration Isolators	No	No Damage	Low	Low	Low	Low
109A	Duct Insulation	Yes	<2 linear feet/Damage	Low	Low to Moderate	Low	Low to Moderate
111	Piping	Yes	2 linear feet/Damage, Significant Damage	Low	Low to Moderate	Low	Moderate
111	Floor Tile	No	No Damage	Low	Low	Low	Low
112	Floor Tile	No	No Damage	Low	Low	Low	Low
115	Pipe elbow/fittings (above ceiling)	Yes	Significant Damage	Low	Low to Moderate	Low	Low to Moderate

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PRESENT AND FUTURE EXPOSURE POTENTIAL

Building No 112 (Cont)
Location Rocky Flats

Date April 22, 1996

Sylvester B. Douglas
Management Planner/Inspector's Name

SD
Signature

[redacted]
Management Planner/Inspector ID

					EXPOSURE POTENTIAL		
					Present	Future	
Space No.	Asbestos Material	Friable	Present Condition	Damage Potential	No Response Action	Response Action Completed	Response Action Not Completed
115 (Cont)	Cementitious Panel	No	No Damage	Low	Low	Low	Low
116	Piping	Yes	No Damage	Low to Moderate	Low	Low	Low to Moderate
116A	Duct Insulation	Yes	<10 square feet/Damage	Low	Low to Moderate	Low	Moderate to High
Tunnel	Presumed Asbestos-Containing Piping	Yes	<5 linear feet/Damage	Low	Low	Low	Low to Moderate
Bldg Ext	Exterior Finish	No	No Damage	Moderate to High	Low	Low	Low to Moderate

SITEX

BUILDING 112

Drawing

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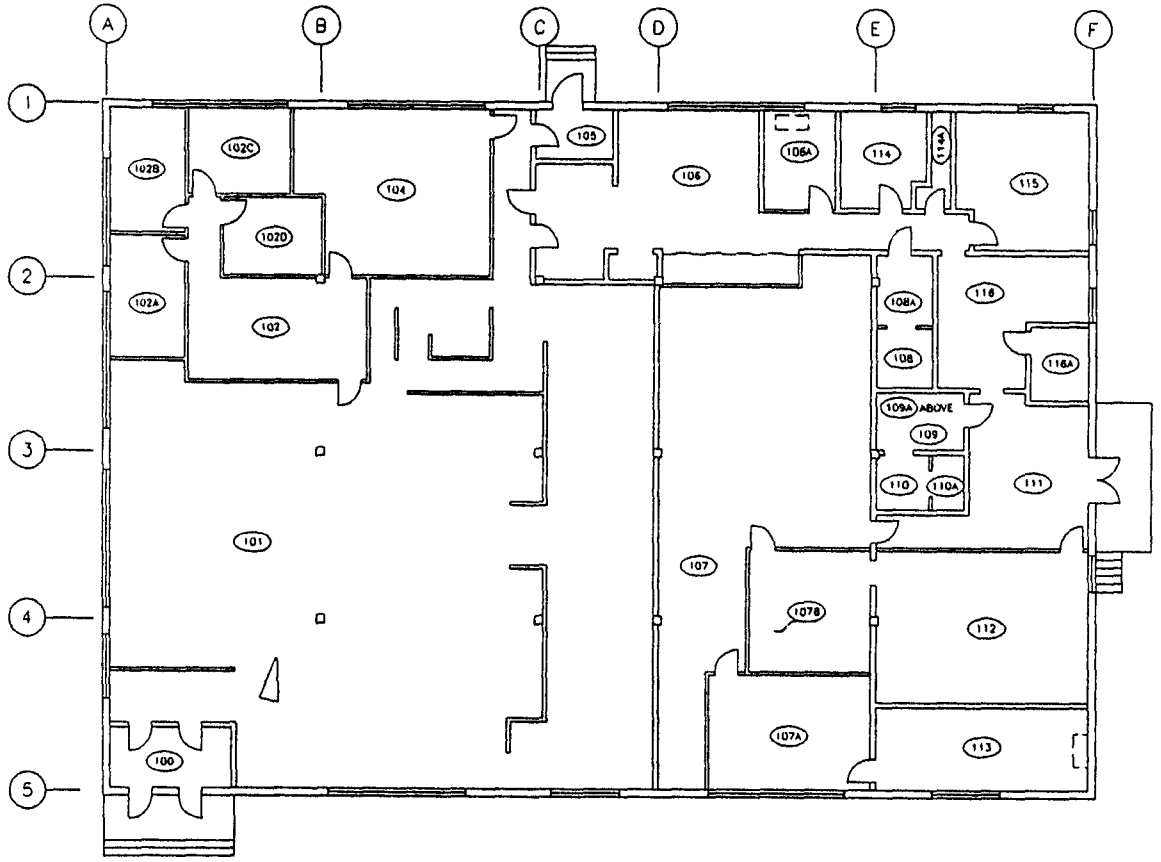
BUILDING 112



FIRST FLOOR

ASBESTOS NOTES

SPACE	ASBESTOS MATERIAL	PHOTO NO.
100	PIPE STEAM CONDENSATE STEAM	
101	FLOOR TILE/MASTIC BASE MOLDING PIPE (ABOVE CEILING)	19 23 25
102	FLOOR TILE (UNDER CARPET)	38
102A C D	FLOOR TILE	
102C	TRANSITE WALL	39
104	FLOOR TILE/MASTIC (UNDER CARPET)	41
105	TRANSITE WALL (OUTSIDE) PIPE STEAM	18
106	PIPE DOMESTIC COLD WATER	2
106A	PIPE STEAM CONDENSATE STEAM	
107	PIPE STEAM	
107A	PIPE STEAM	35
107B	FLOOR TILE	30
109A	TRANSITE WALLS DUCT INSULATION VIBRATOR ISOLATOR	48 49 16 16
111	FLOOR TILE PIPE STEAM	13 14
112	FLOOR TILE (UNDER CARPET)	9
115	TRANSITE CEILING PIPE STEAM (ABOVE CEILING)	8
BLDG EXT	EXTERIOR FINISH	45

NOTES
1 PIPE INSULATION ABOVE CEILINGS AND IN TUNNEL COULD NOT BE ACCESSED AND MUST BE PRESUMED ASBESTOS-CONTAINING MATERIAL

2 ASBESTOS-CONTAINING BUILDING MATERIALS WERE NOT FOUND IN SPACES

102B 108 110 114
108A 110A 114A
109 113

LEGEND

SPACE NUMBER
WALL
TUNNEL ACCESS

DR. A CK. SB
JOB NO. 108730
DATE 4/10/95
SHEET NO. ASB-1

ASBESTOS INSPECTION

SITEX Environmental, Inc
11905 Borman Drive
St Louis MO 63146
(314) 569-1119

U S DEPARTMENT OF ENERGY
ROCKY FLATS FIELD OFFICE
GOLDEN COLORADO 80402

NO.	DATE	REMARKS
REVISIONS		

BUILDING 112

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SITEX

BUILDING 112

Photographs

SITEX

1

2

3

4

5

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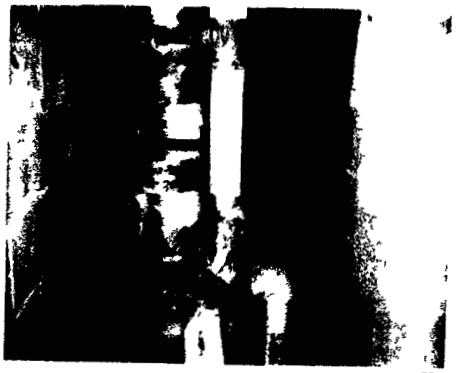
211

SITEX



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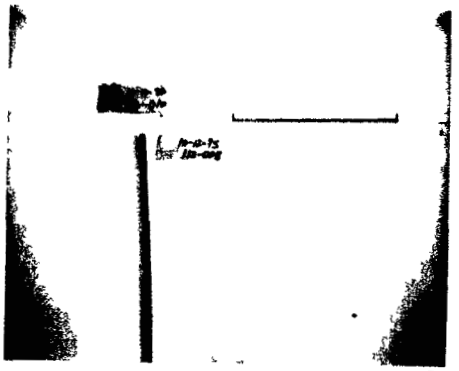

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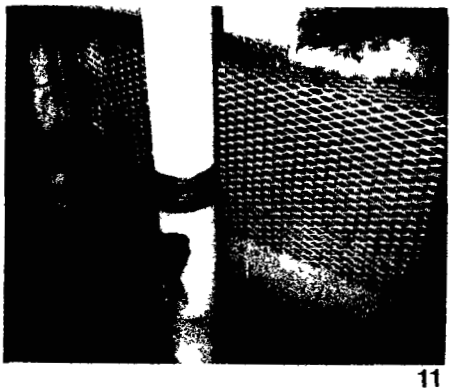

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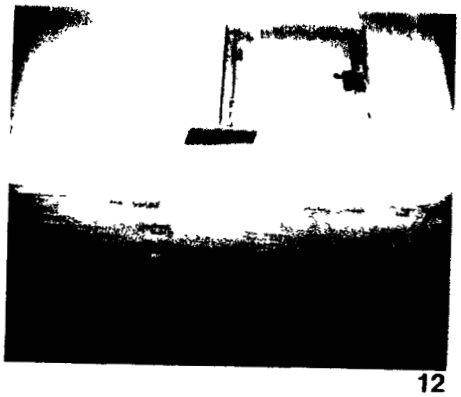

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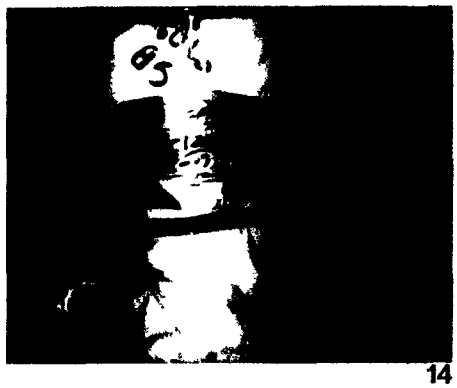

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SITEX

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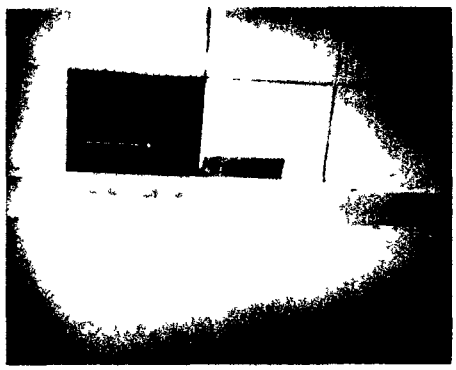

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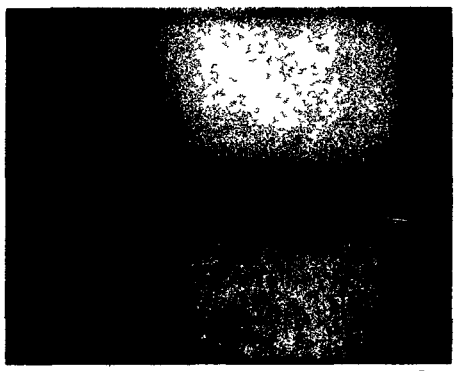

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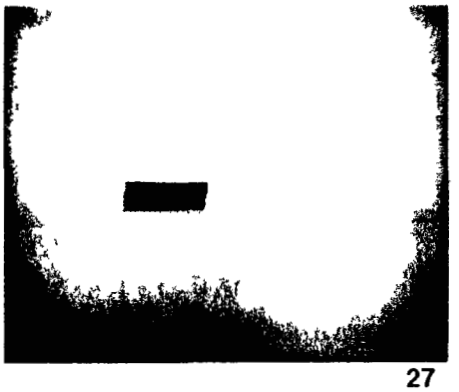

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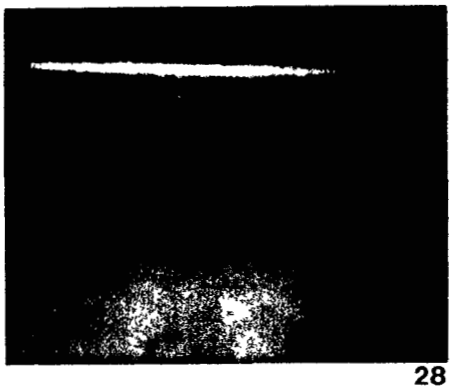

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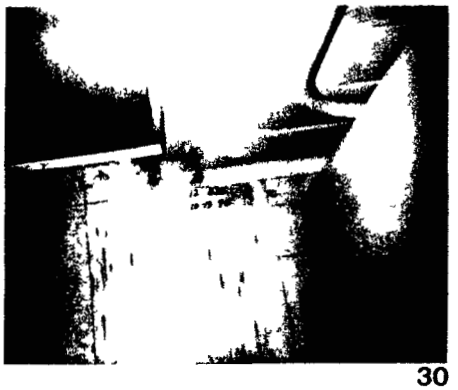

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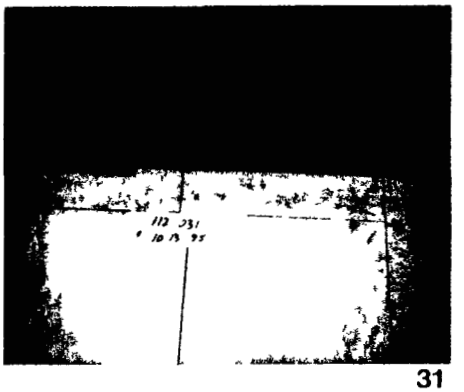

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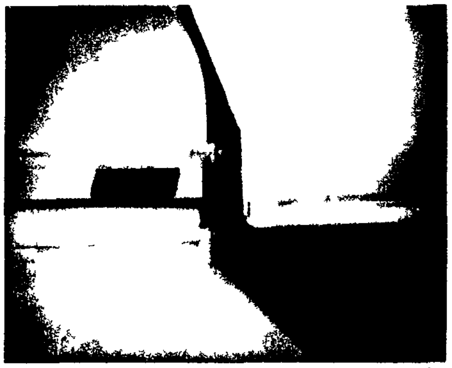

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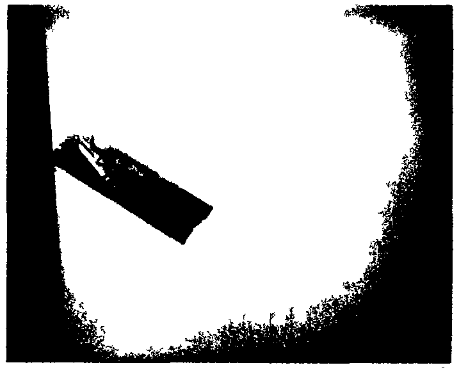

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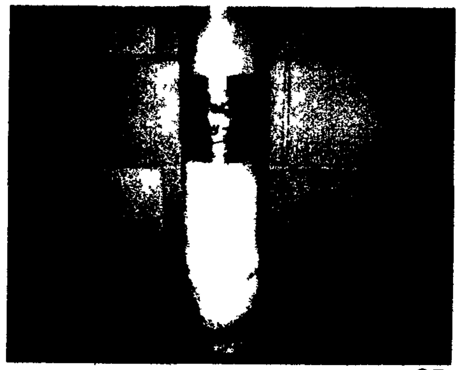

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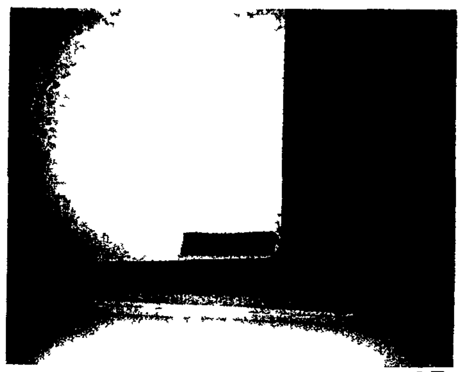

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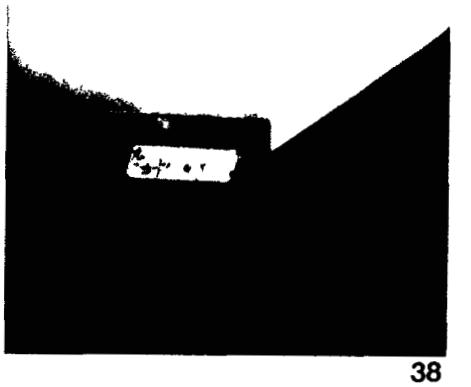

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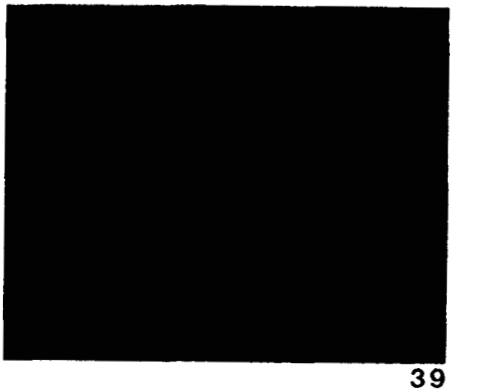

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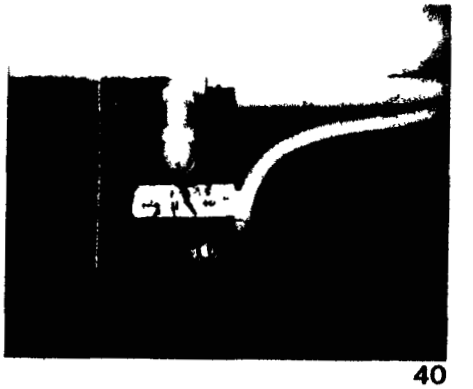

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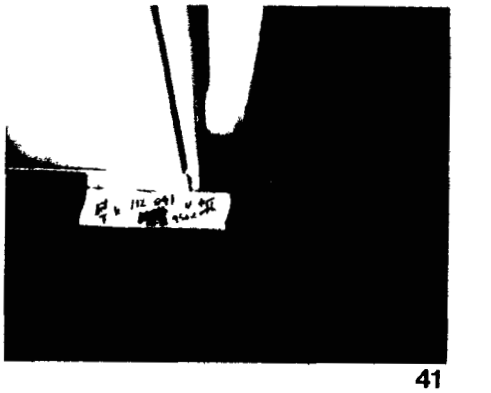

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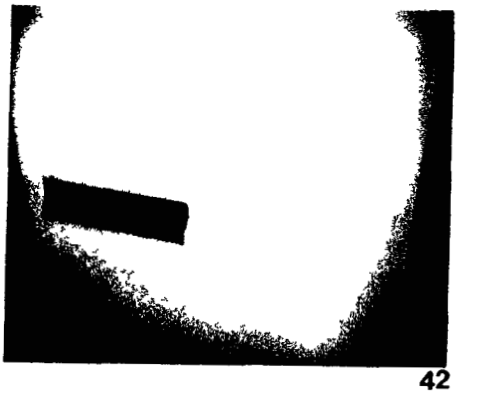

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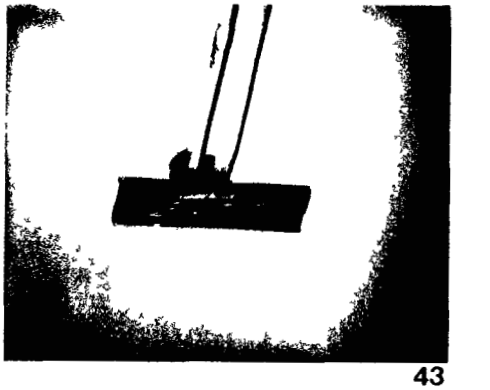

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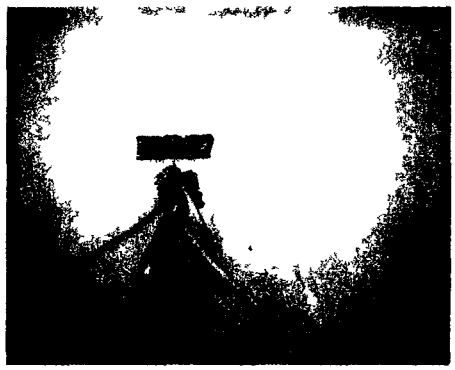
SITEX

44



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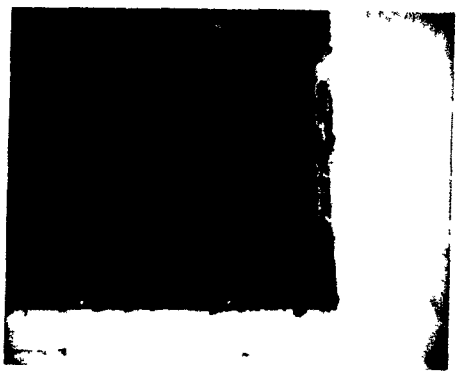

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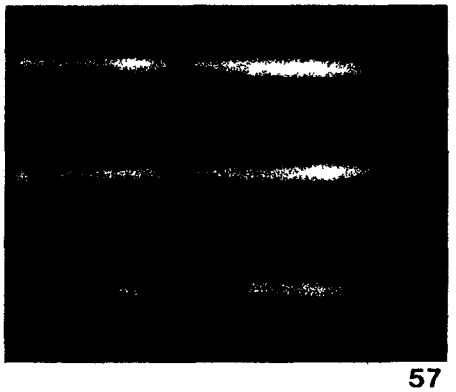

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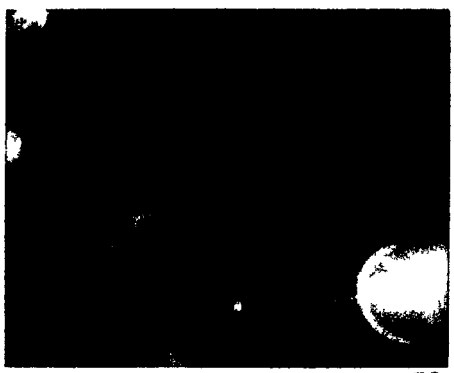

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OBSERVATIONS

Asbestos-containing pipe insulation for domestic cold water lines was found to contain asbestos in one area of the building (Space 106) and not to contain asbestos in other areas (Spaces 111 and 114A) The inconsistency of this material requires that all the material be treated as presumed asbestos-containing Confirmation sampling should be performed prior to disturbing this material if it is not presumed to be asbestos Also pipe insulation above the cafeteria ceiling could not be accessed and was presumed to be asbestos-containing as with the tunnel piping

Base molding in the cafeteria along the south wall was sampled twice and found to contain asbestos The base molding sample from the north wall did not contain asbestos

No roofing material samples were collected due to weather conditions which would not have allowed proper repair of the roof without risk of weather damage

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Beryllium Data Summary

Sample Number	Map Survey Point Location	Room	Sample Location	Result ($\mu g/100\ cm^2$)
Building 112				
112-09102002-315-101	101	109	Top of air unit	< 0.1
112-09102002-315-102	102	116	Inside metal cabinet on second shelf	< 0.1
112-09102002-315-103	103	101	Top surface of kitchen exhaust hood	< 0.1
112-09102002-315-104	104	100	On concrete floor NE corner	< 0.1
112-09102002-315-105	105	106	On concrete floor NE corner	< 0.1
112-09122002-315-106	106	101	West window sill	< 0.1
112-09122002-315-107	107	104	North window sill	< 0.1
112-09122002-315-108	108	108	Top of electrical panel, south wall	< 0.1
112-09122002-315-109	109	116	Top of east hot water tank	< 0.1
112-09122002-315-110	110	116A	Top of electrical transformer	< 0.1
Building T371A				
T371A-09162002-315-101	101	6	Louvers of air supply diffuser, ceiling	< 0.1
T371A-09162002-315-102	102	1	Louvers of air supply diffuser, north wall	< 0.1
T371A-09162002-315-103	103	3	Top of fluorescent light fixture, ceiling	< 0.1
T371A-09162002-315-104	104	5	Louvers to wall-mounted AC unit, east wall	< 0.1
T371A-09162002-315-105	105	7	Window sill, south wall	< 0.1
Building T371C				
T371C-09162002-315-106	106	114D	Top of fluorescent light fixture	< 0.1
T371C-09162002-315-107	107	113	Top of fluorescent light fixture	< 0.1
T371C-09162002-315-108	108	Hallway	Top of fire suppression pipe in plenum, west hall	< 0.1
T371C-09162002-315-109	109	Hallway	Louvers of HVAC supply	< 0.1
T371C-09162002-315-110	110	102	Top of metal storage cabinet, SW corner	< 0.1
T371C-09202002-315-131	131	103	Top of wooden book shelf, west wall	< 0.1
T371C-09202002-315-132	132	Hallway	Top of fluorescent light fixture	< 0.1
T371C-09202002-315-133	133	Hallway	Top of electrical conduit in plenum	< 0.1
T371C-09202002-315-134	134	Hallway	Inside HVAC diffuser guard	< 0.1
T371C-09202002-315-135	135	114C	Top of metal file cabinet	< 0.1
Building T371D				
T371D-09162002-315-111	111	Main	Top of fluorescent light fixture	< 0.1
T371D-09162002-315-112	112	Main	Top of fluorescent light fixture	< 0.1
T371D-09162002-315-113	113	Main	Top of fluorescent light fixture	< 0.1
T371D-09162002-315-114	114	Main	Top of Switch 2000 Communication box	< 0.1
T371D-09162002-315-115	115	SE Room	Inside cold air return duct	< 0.1

Building T371E				
T371E-09162002-315-116	116	Men's	On linoleum at west wall	< 0 1
T371E-09162002-315-117	117	Men's	Window sill, north wall	< 0 1
T371E-09162002-315-118	118	Men's	Top of towel dispenser, west wall	< 0 1
T371E-09162002-315-119	119	Women's	Top of locker, north wall	< 0 1
T371E-09162002-315-120	120	Women's	On linoleum, SE corner under sink	< 0 1
Building T371F				
T371F-09162002-315-121	121	Main	Top of fluorescent light fixture	< 0 1
T371F-09162002-315-121	122	Main	Top of fluorescent light fixture	< 0 1
T371F-09162002-315-121	123	103	Top of metal shelf on desk	< 0 1
T371F-09162002-315-121	124	Main	On window sill, north wall	< 0 1
T371F-09162002-315-121	125	101	Top of red fire suppression pipe, east wall	< 0 1
Building 367				
367-09232002-315-126	126	Main	Beneath window sill, west wall	< 0 1
367-09232002-315-127	127	Main	Concrete floor	< 0 1
367-09232002-315-128	128	Main	Top of Westinghouse electrical Panel A, east wall	< 0 1
367-09232002-315-129	129	Main	Top of fluorescent light fixture	< 0 1
367-09232002-315-130	130	Main	Concrete floor, NW corner	< 0 1
Building 553				
553-09102002-315-101	101	Main	Edge of eye wash station, west wall	< 0 1
553-09102002-315-102	102	Main	Second metal shelf, south wall	< 0 1
553-09102002-315-103	103	Main	Horizontal I-beam wall support, south wall	< 0 1
553-09102002-315-104	104	Main	Horizontal metal shelf, north wall	< 0 1
553-09102002-315-105	105	Main	Horizontal I-beam wall support, east wall	< 0 1
Building 223				
223-09102002-315-106	106	Office	Top of vinyl floor tile at south wall	< 0 1
223-09102002-315-107	107	Main	Top of work bench	< 0 1
223-09102002-315-108	108	Main	Top of I-beam support at floor	< 0 1
223-09102002-315-109	109	Main	Top of flange of vertical post at floor	< 0 1
223-09102002-315-110	110	Main	Second metal shelf, south wall	< 0 1
Building T760A				
T760A-09232002-315-101	101	Men's	Top of fluorescent light fixture	< 0 1
T760A-09232002-315-101	102	Men's	On tile floor in NW corner	< 0 1
T760A-09232002-315-101	103	Men's	Top of Men's locker, SW corner	< 0 1
T760A-09232002-315-101	104	Women's	Louvers to ceiling diffuser	< 0 1
T760A-09232002-315-101	105	Women's	Top of locker 66, east wall	< 0 1

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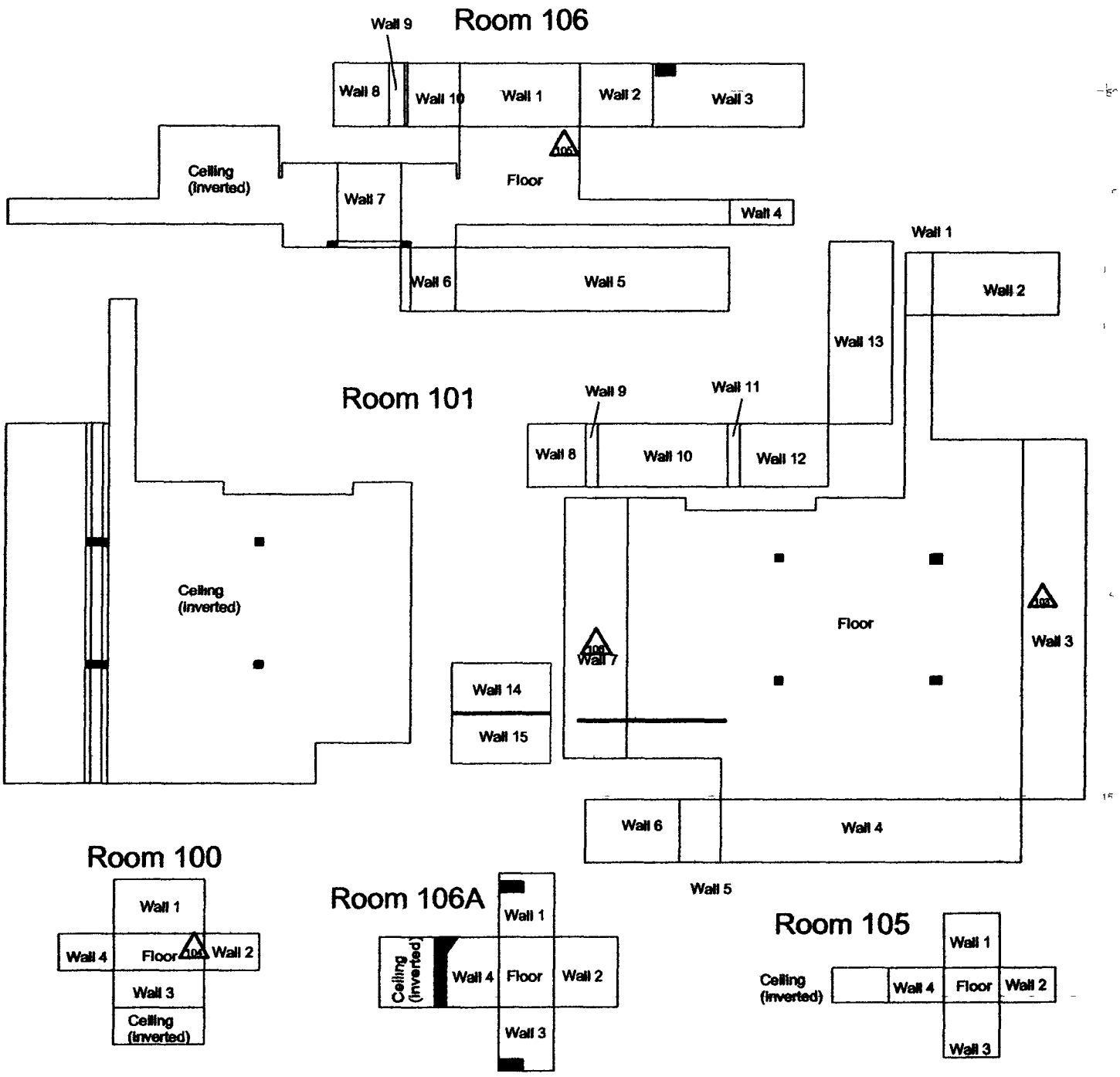
CHEMICAL SAMPLE MAP

Building: 112 Interior



SURVEY MAP LEGEND

- Asbestos Sample Location
- Beryllium Sample Location
- Lead Sample Location
- RCRA/CERCLA Sample Location
- PCB Sample Location
- Open/Inaccessible Area
- Area in Another Survey Unit

N

0 FEET 30

0 METERS 10

1 inch = 24 feet 1 grid sq = 1 sq m.

US Department of Energy
Rocky Flats Environmental Technology Site

Prepared by: GIS Dept. 303-966-7707

Prepared for:

DynCorp
THE ART OF TECHNOLOGY

MAP ID: 02-0312/112-IN-1BE September 5, 2002

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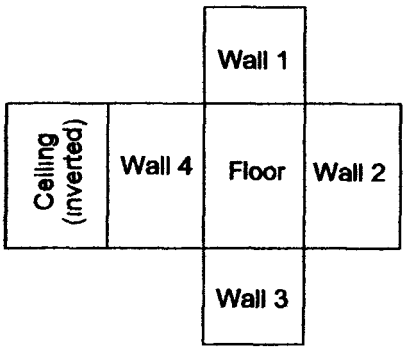
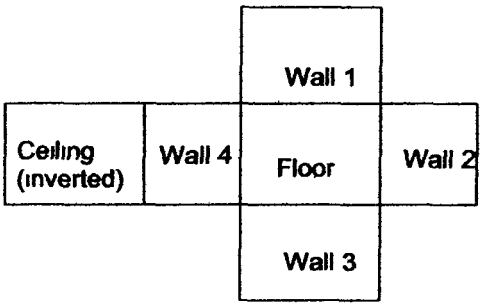
CHEMICAL SAMPLE MAP

Building: 112 Interior

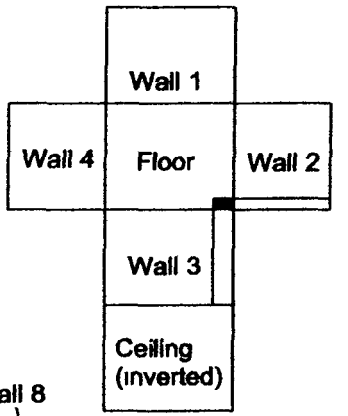
Room 102B



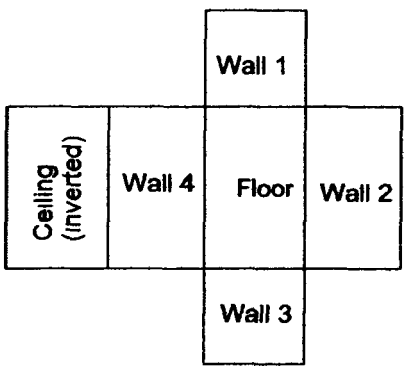
Room 102C



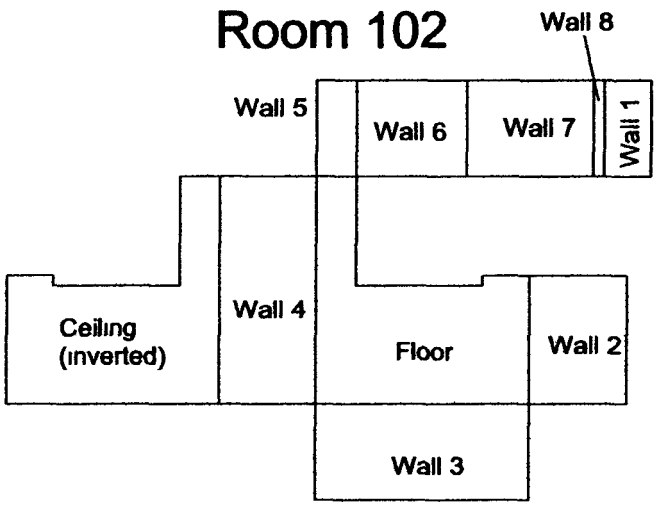
Room 102D



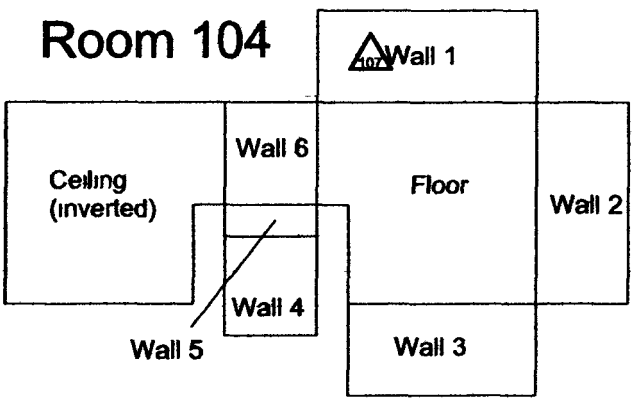
Room 102A



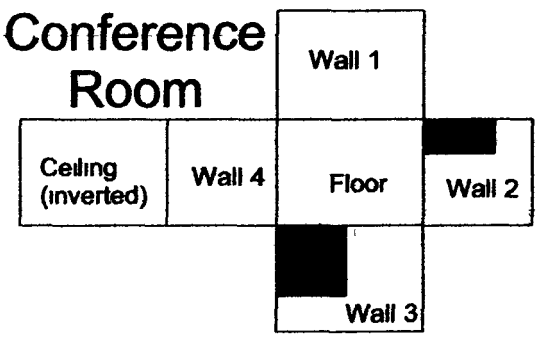
Room 102



Room 104



Conference Room



SURVEY MAP LEGEND

- Asbestos Sample Location
- Beryllium Sample Location
- Lead Sample Location
- RCRA/CERCLA Sample Location
- PCB Sample Location
- Open/Inaccessible Area
- Area in Another Survey Unit

N

0 FEET 25

0 METERS 8

1 inch = 18 feet 1 grid sq. = 1 sq. m.

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Prepared for: [redacted]

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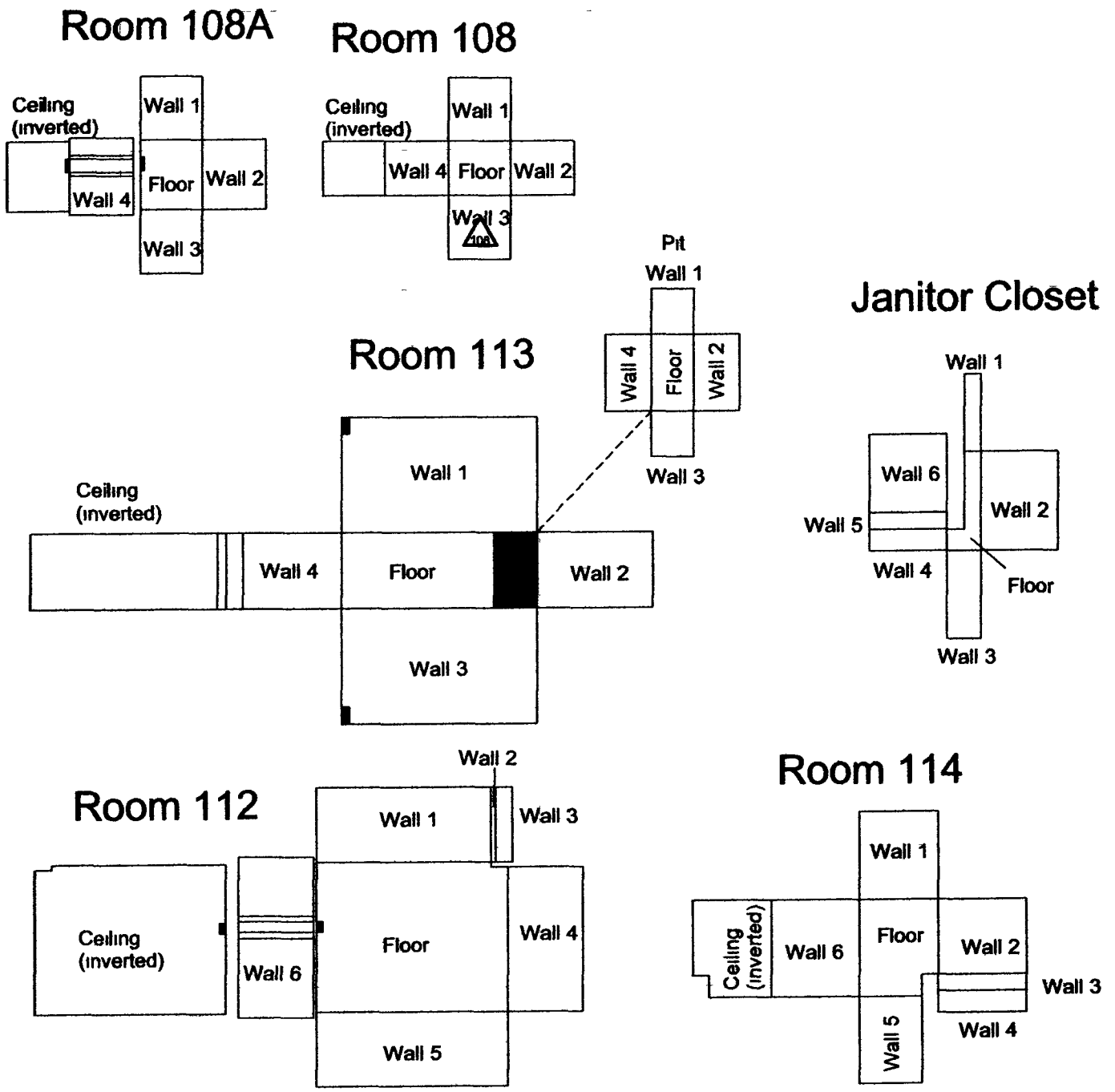
CHEMICAL SAMPLE MAP

Building: 112 Interior



SURVEY MAP LEGEND

- Asbestos Sample Location
- Beryllium Sample Location
- Lead Sample Location
- RCRA/CERCLA Sample Location
- PCB Sample Location
- Open/Inaccessible Area
- Area in Another Survey Unit

N

0 FEET 25

0 METERS 8

1 inch = 18 feet 1 grid sq. = 1 sq m

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Prepared for: [redacted]

MAP ID: 02-0312/112-IN-4BE September 5, 2002

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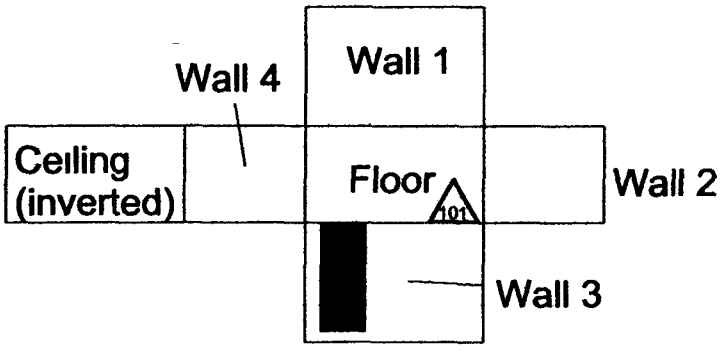
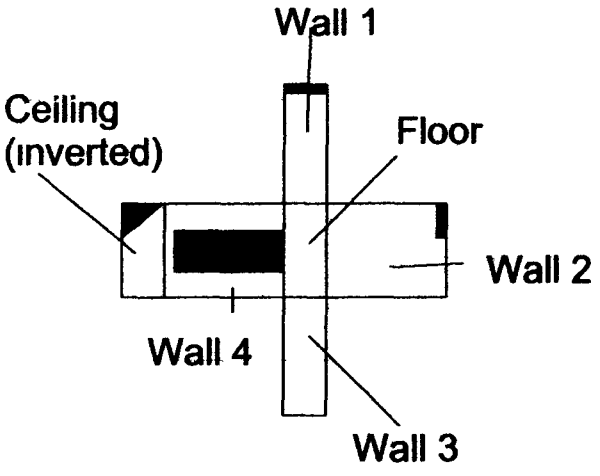
CHEMICAL SAMPLE MAP

Building: 112 Interior

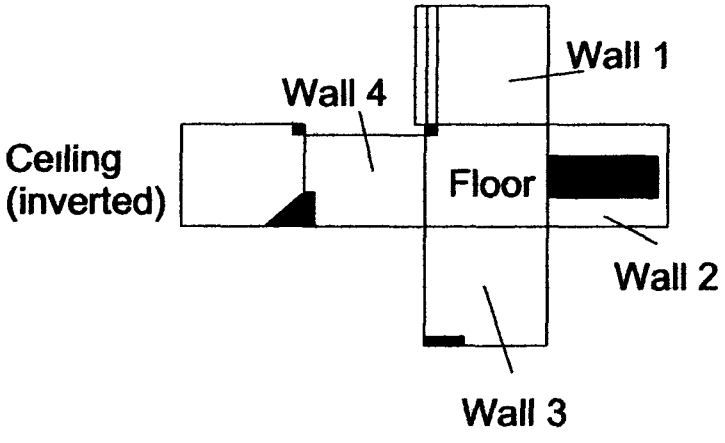
Room 109



Room 110A



Room 110



SURVEY MAP LEGEND

- Asbestos Sample Location
- Beryllium Sample Location
- Lead Sample Location
- RCRA/CERCLA Sample Location
- PCB Sample Location
- Open/Inaccessible Area
- Area in Another Survey Unit

N

0 FEET 15

0 METERS 5

1 inch = 12 feet 1 grid sq = 1 sq m

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Prepared for:

MAP ID: 02-0312/112-IN-SBE September 5, 2002

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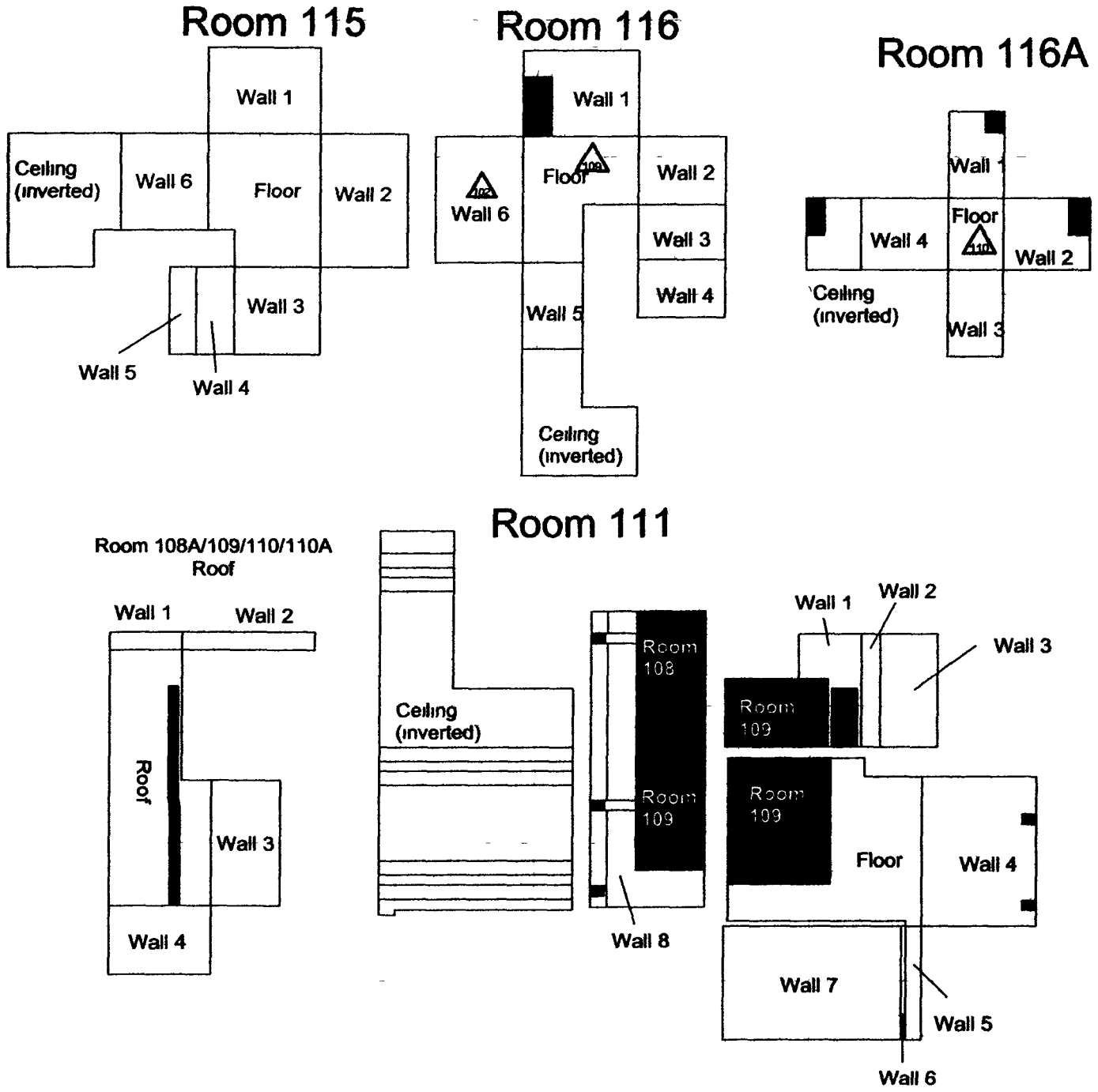
CHEMICAL SAMPLE MAP

Building: 112 Interior



SURVEY MAP LEGEND

- Asbestos Sample Location
- Beryllium Sample Location
- Lead Sample Location
- RCRA/CERCLA Sample Location
- PCB Sample Location
- Open/Inaccessible Area
- Area in Another Survey Unit

N

0 FEET 25

0 METERS 8

1 inch = 18 feet 1 grid sq. = 1 sq. m.

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[redacted]

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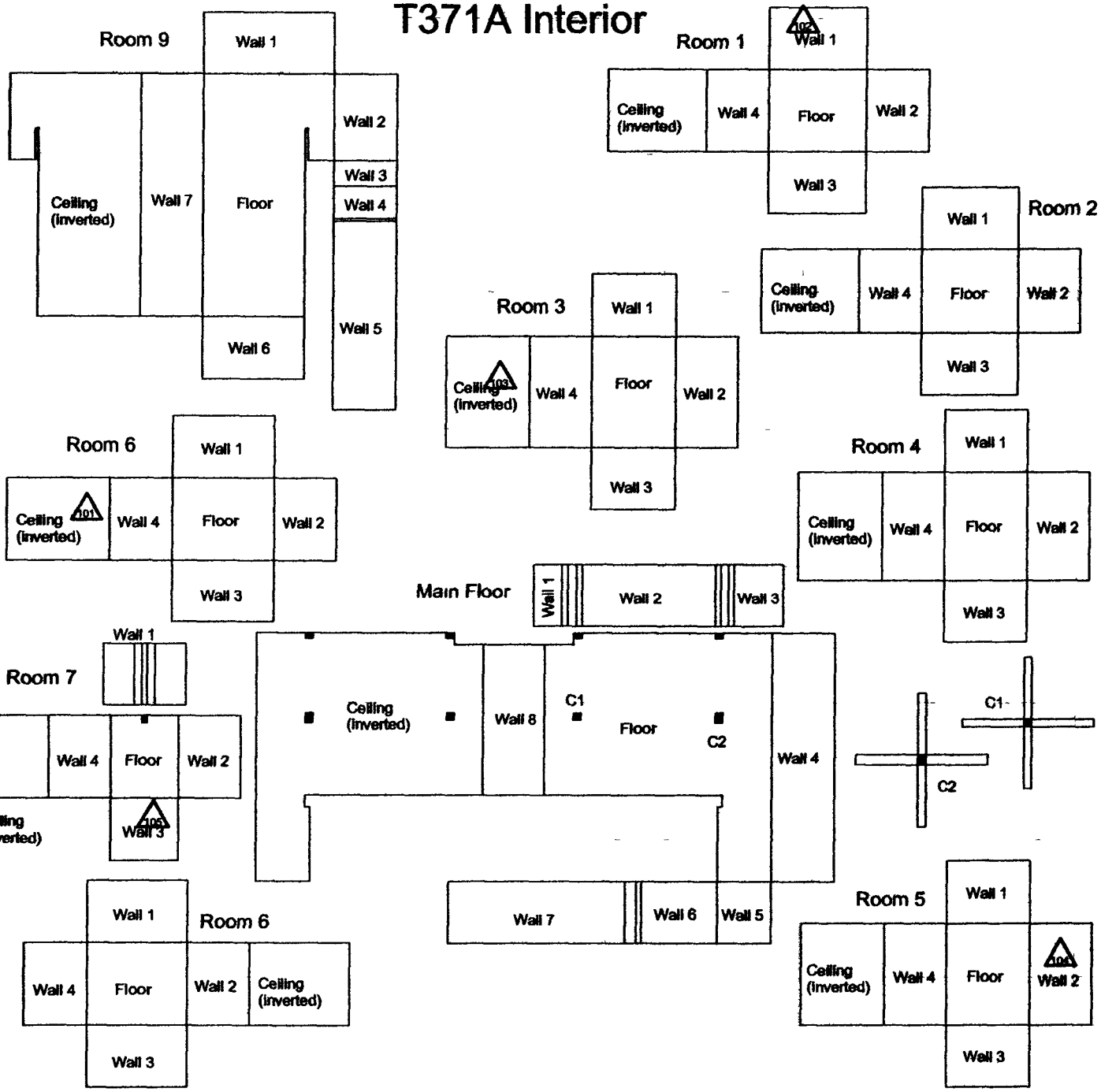
CHEMICAL SAMPLE MAP

Building· T371A



SURVEY MAP LEGEND

- Asbestos Sample Location
- Beryllium Sample Location
- Lead Sample Location
- RCRA/CERCLA Sample Location
- PCB Sample Location
- Open/Inaccessible Area
- Area in Another Survey Unit

N

0 FEET 25

0 METERS 8

1 inch = 18 feet 1 grid sq. = 1 sq. m

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MAP ID 02-0589/T371A-IN-BE September 23, 2002

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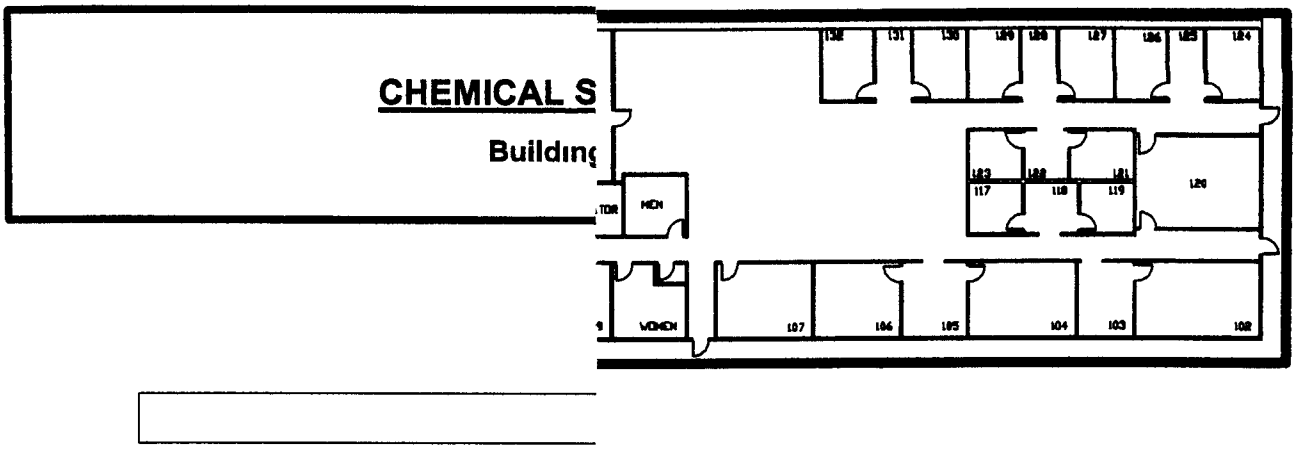
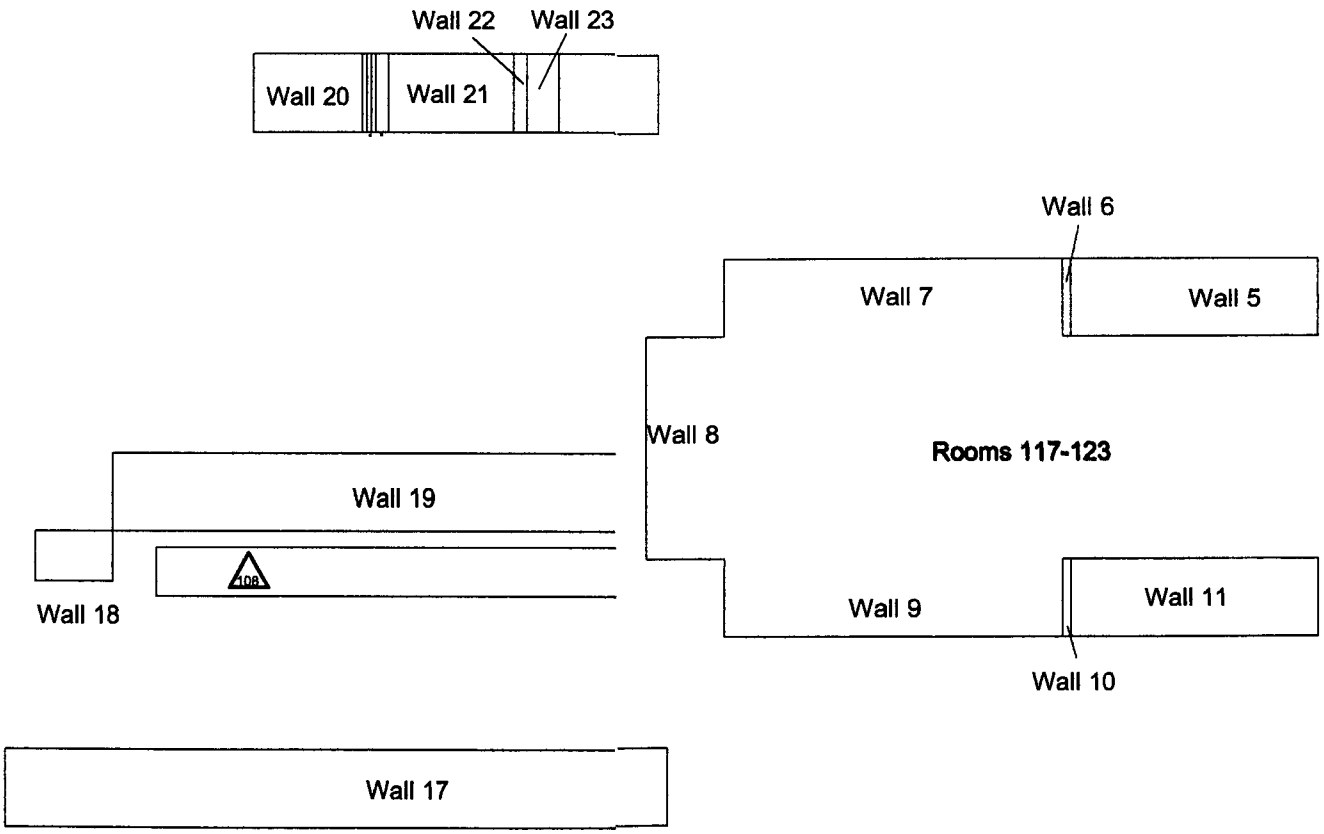


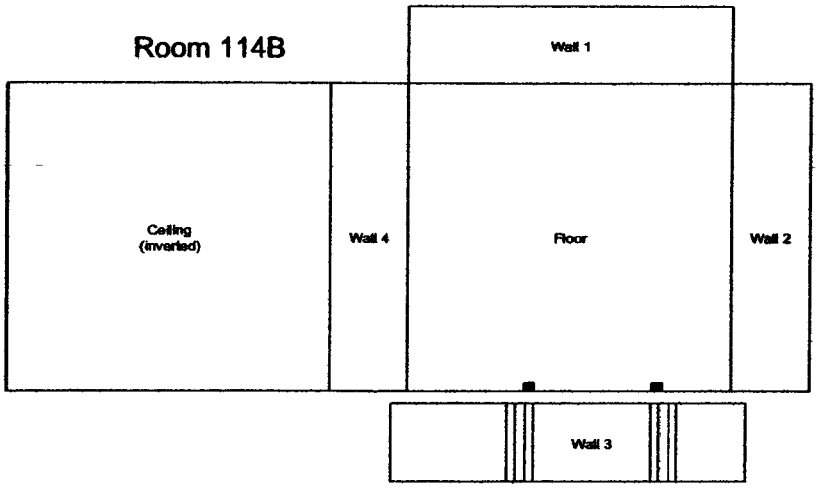
Main floor and hallways

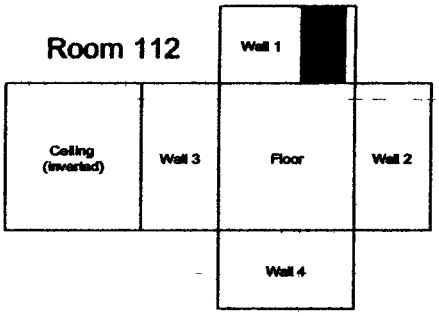


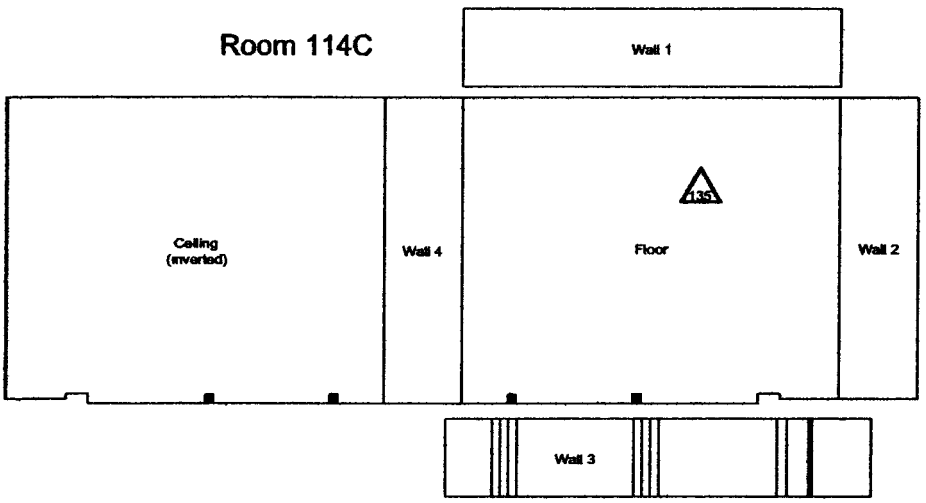
230

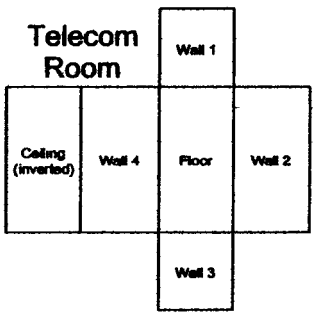
CHEMICAL SAMPLE MAP

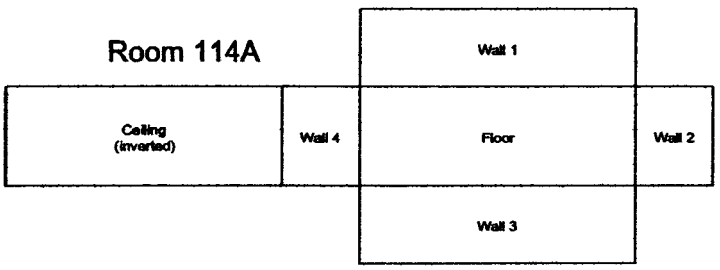
Building: T371C

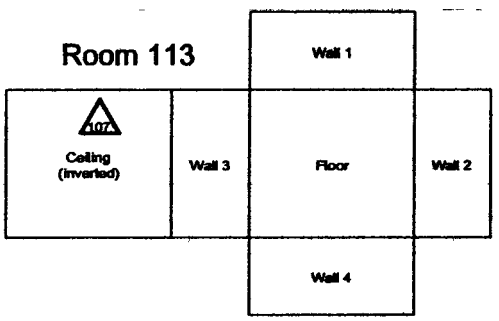












SURVEY MAP LEGEND

- Asbestos Sample Location
- Beryllium Sample Location
- Lead Sample Location
- RCRA/CERCLA Sample Location
- PCB Sample Location
- Open/Inaccessible Area
- Area in Another Survey Unit

N

0 FEET 25

0 METERS 8

1 inch = 18 feet 1 grid sq. = 1 sq. m.

U S Department of Energy
Rocky Flats Environmental Technology Site

Prepared by: GIS Dept. 303-966-7787

Prepared for: [redacted]

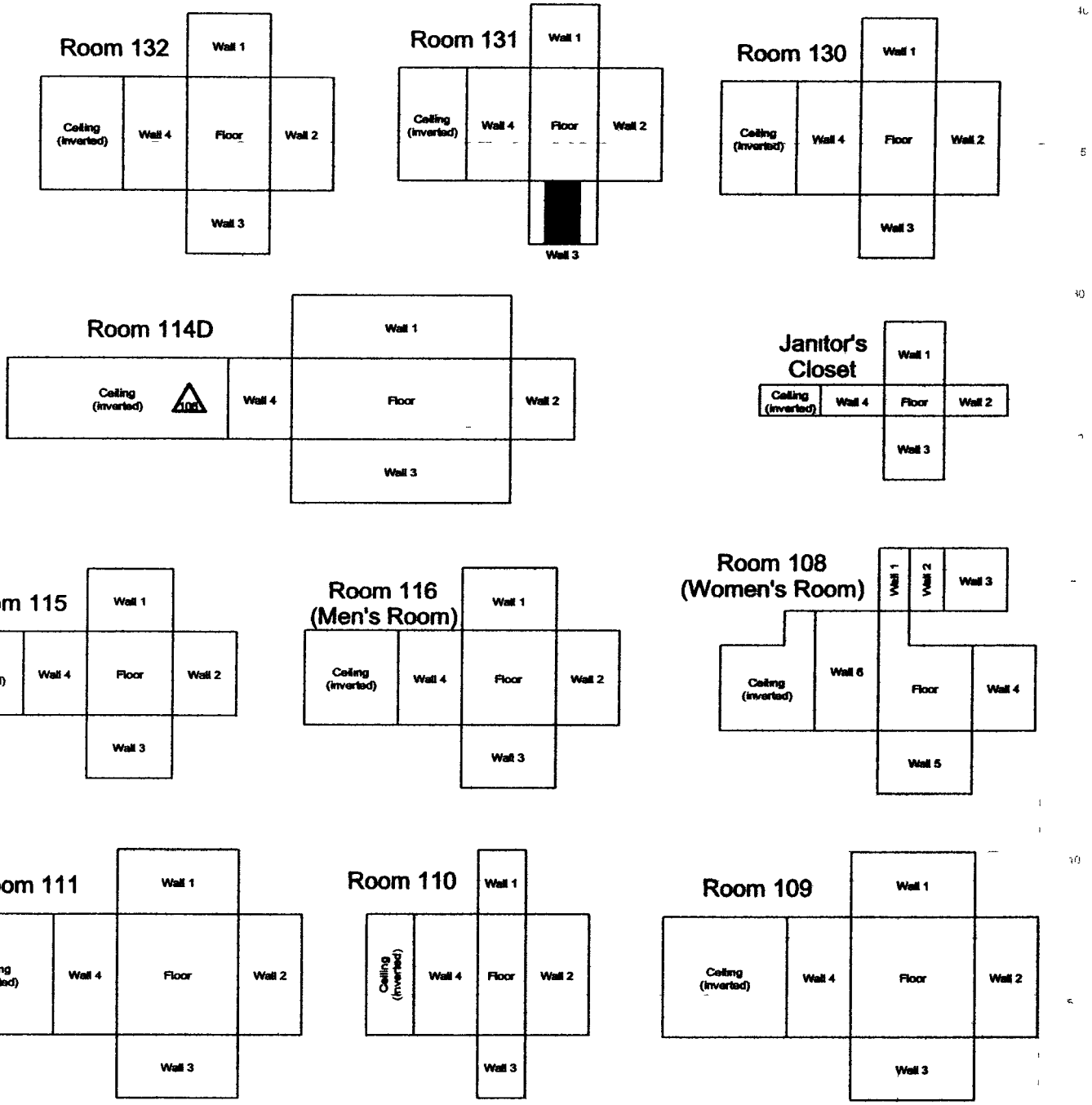
DynCorp
THE ART OF TECHNOLOGY

MAP ID 02-0589/T371C-IN2-B8 September 23, 2002

231

CHEMICAL SAMPLE MAP

Building: T371C



SURVEY MAP LEGEND

- Asbestos Sample Location
- Beryllium Sample Location
- Lead Sample Location
- RCRA/CERCLA Sample Location
- PCB Sample Location
- Open/Inaccessible Area
- Area in Another Survey Unit

N

0 FEET 25

0 METERS 8

1 inch = 18 feet 1 grid sq. = 1 sq. m.

US Department of Energy
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Prepared by: GIS Dept. 303-966-7707

Prepared for:

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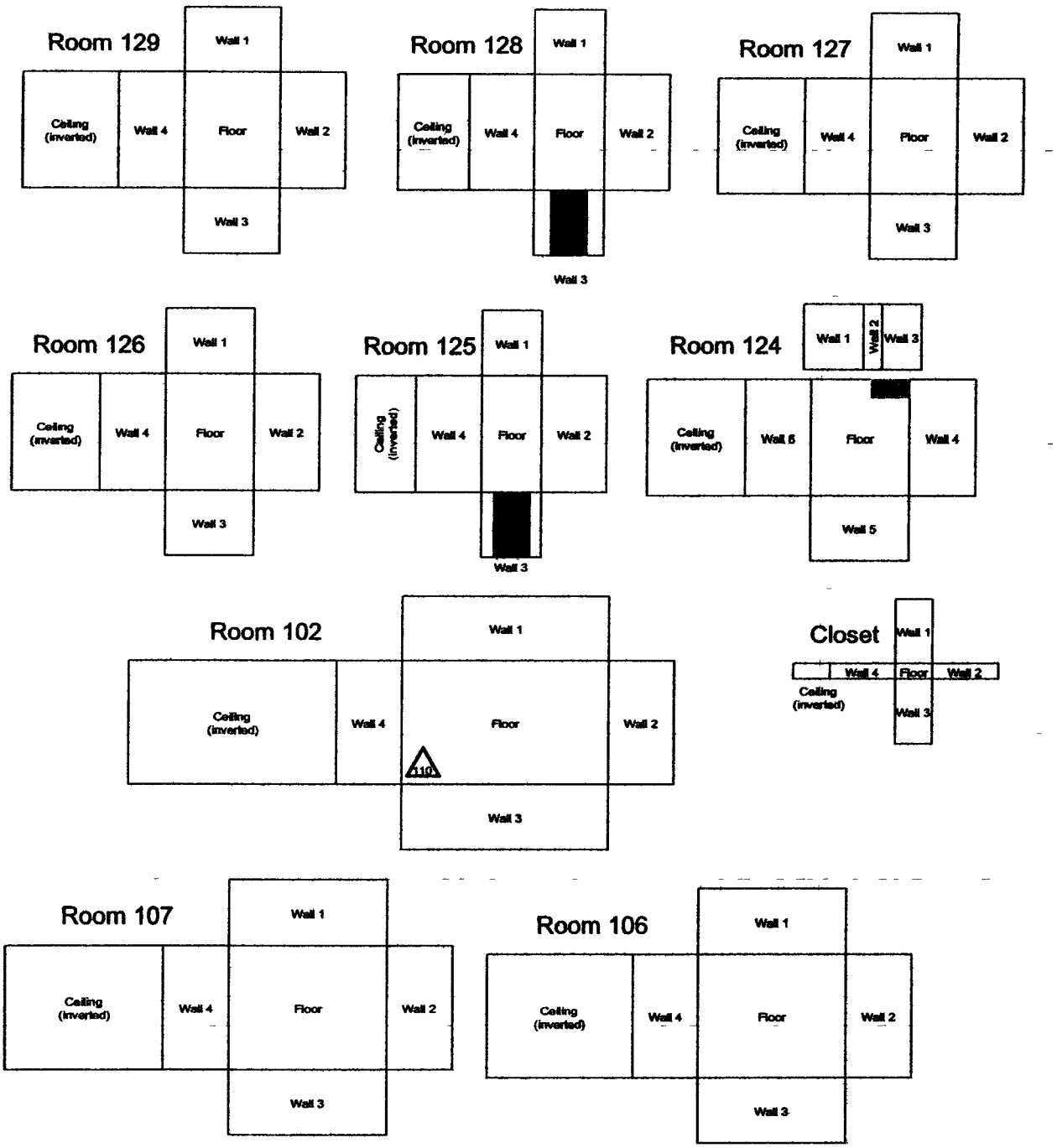
MAP ID 02-0589/T371C-IN3-BBSeptember 23, 2002

232

CHEMICAL SAMPLE MAP

Building: T371C



SURVEY MAP LEGEND

- Asbestos Sample Location
- Beryllium Sample Location
- Lead Sample Location
- RCRA/CERCLA Sample Location
- PCB Sample Location
- Open/Inaccessible Area
- Area in Another Survey Unit

N

0 FEET 25

0 METERS 8

1 inch = 18 feet 1 grid sq. = 1 sq. m

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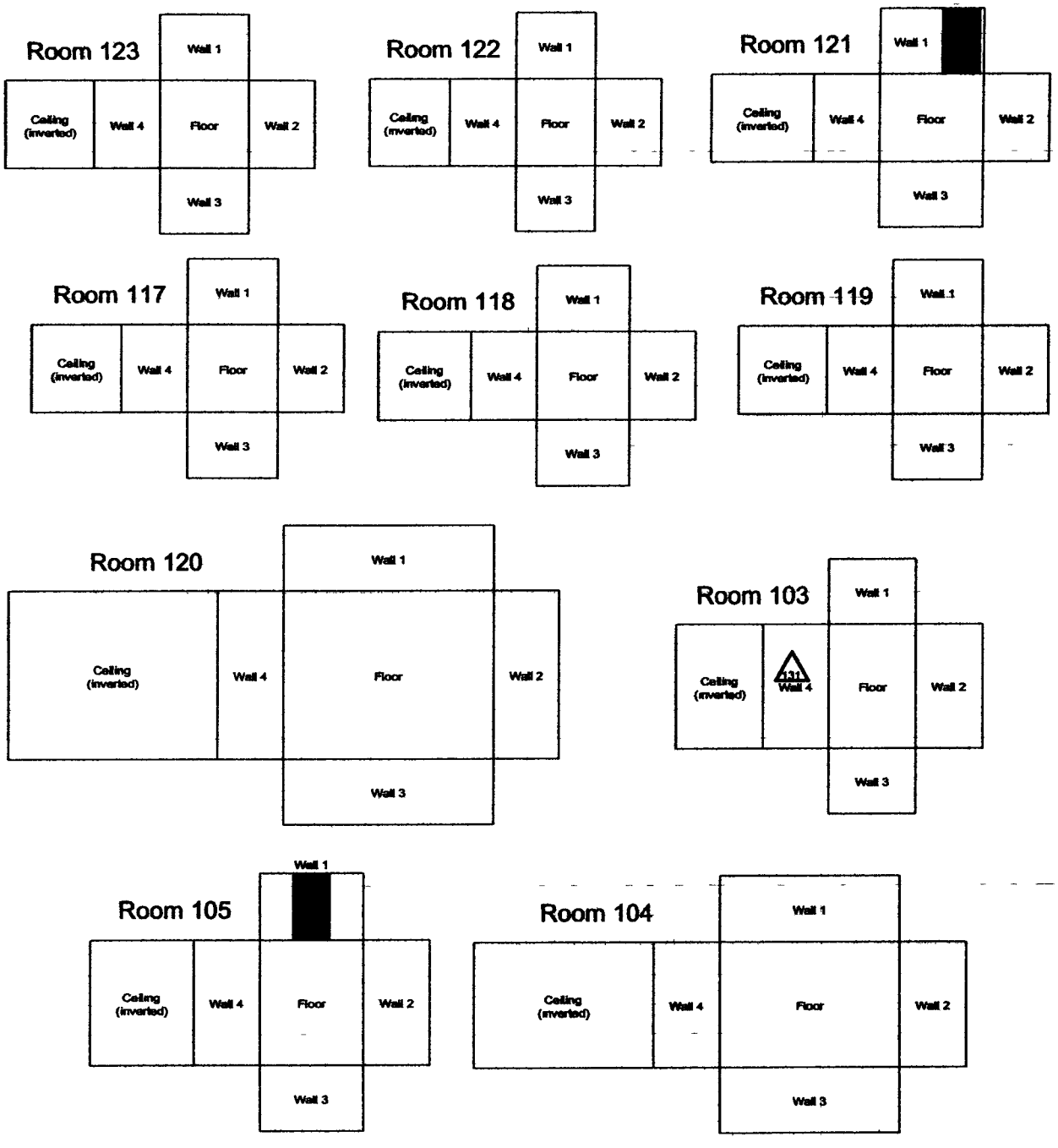
Prepared for:

MAP ID 02-0589/T371C-IN4 September 9, 2002

CHEMICAL SAMPLE MAP

Building: T371C



SURVEY MAP LEGEND

- Asbestos Sample Location
- Beryllium Sample Location
- Lead Sample Location
- RCRA/CERCLA Sample Location
- PCB Sample Location
- Open/Inaccessible Area
- Area in Another Survey Unit

N

0 FEET 25

0 METERS 8

1 inch = 18 feet 1 grid sq. = 1 sq. m.

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Rocky Flats Environmental Technology Site

Prepared by: GIS Dept. 303-966-7707

DynCorp
THE ART OF TECHNOLOGY

Prepared for: [redacted]

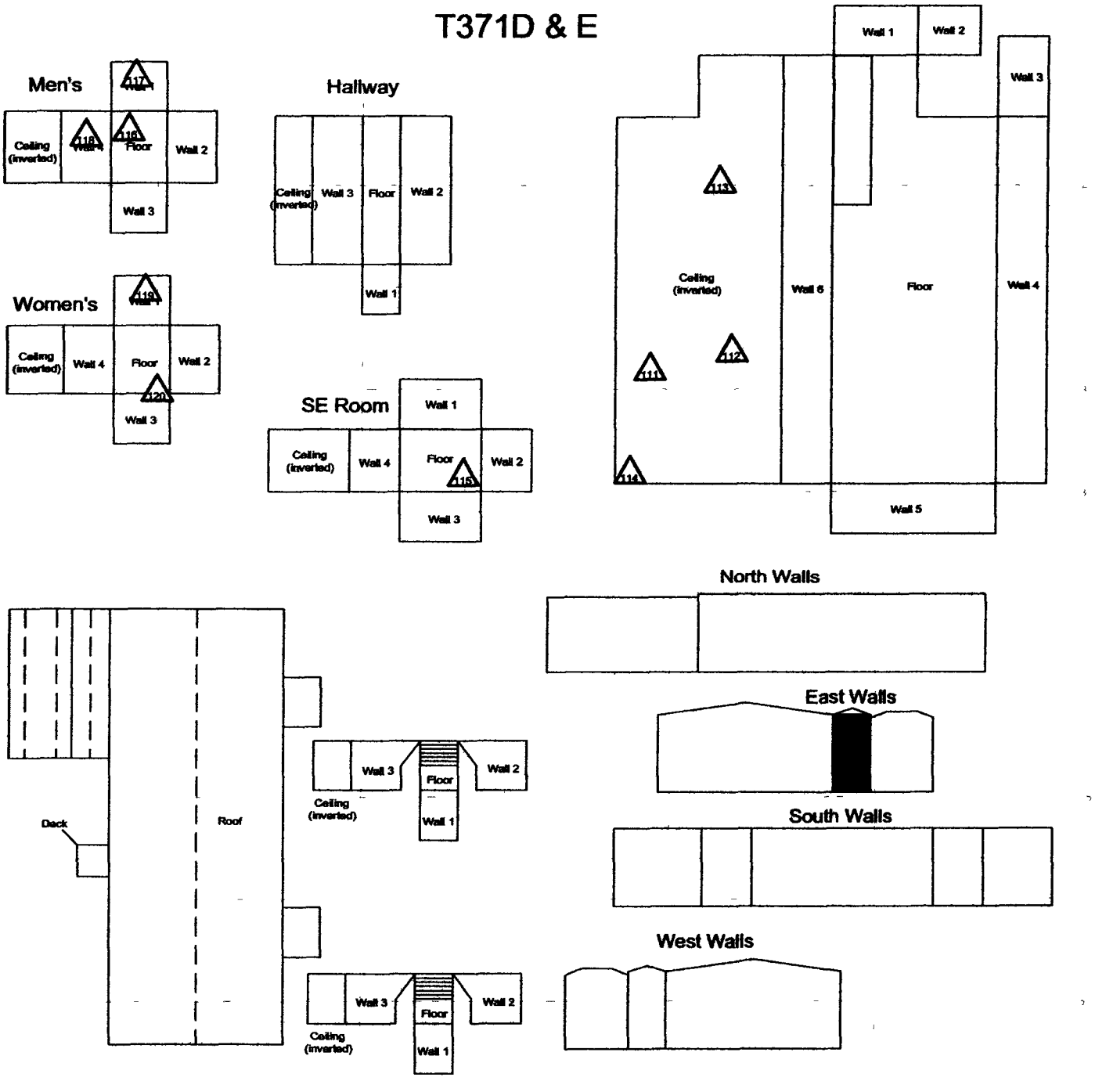
MAP ID 02-0589/T371C-IN5-B8September 23, 2002

234

CHEMICAL SAMPLE MAP

Building: T371D

T371D & E



SURVEY MAP LEGEND

- Asbestos Sample Location
- Beryllium Sample Location
- Lead Sample Location
- RCRA/CERCLA Sample Location
- PCB Sample Location
- Open/Inaccessible Area
- Area in Another Survey Unit

N

0 FEET 30

0 METERS 10

1 inch = 24 feet 1 grid sq = 1 sq m.

U.S Department of Energy
Rocky Flats Environmental Technology Site

Prepared by: GIS Dept. 303-966-7707

Prepared for:

DynCorp
THE ART OF TECHNOLOGY

MAP ID 02-0589/T371D-E-BE September 23, 2002

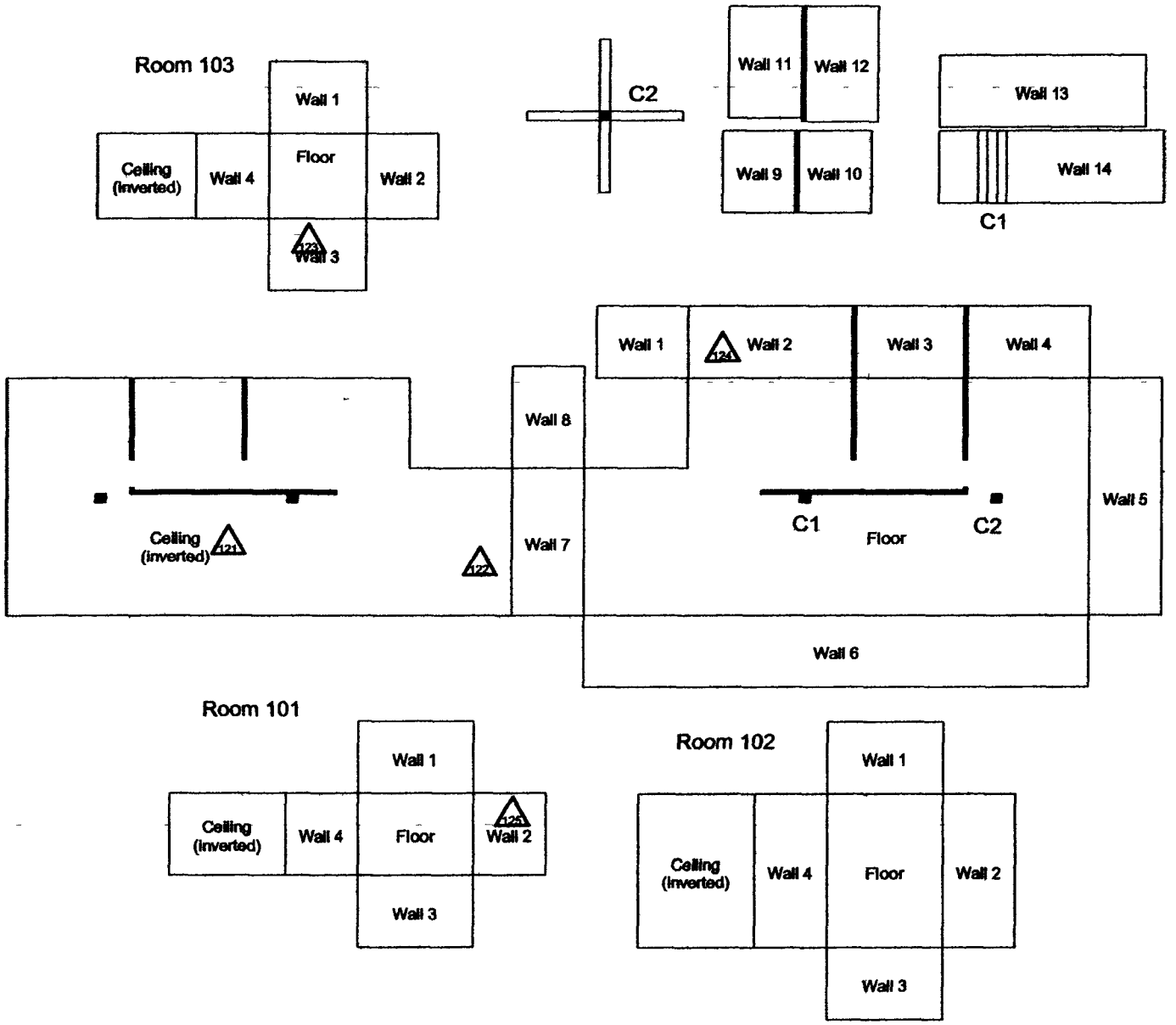
235

CHEMICAL SAMPLE MAP

Building: T371F

T371F Interior

Main Floor



SURVEY MAP LEGEND

- Asbestos Sample Location
- Beryllium Sample Location
- Lead Sample Location
- RCRA/CERCLA Sample Location
- PCB Sample Location
- Open/Inaccessible Area
- Area in Another Survey Unit

N

0 FEET 25

0 METERS 8

1 inch = 18 feet 1 grid sq. = 1 sq. m.

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Rocky Flats Environmental Technology Site

Prepared by: GIS Dept. 303-966-7707

Prepared for:

DynCorp
THE ART OF TECHNOLOGY

MAP ID: 02-0589/T371F-IN-BE September 23, 2002

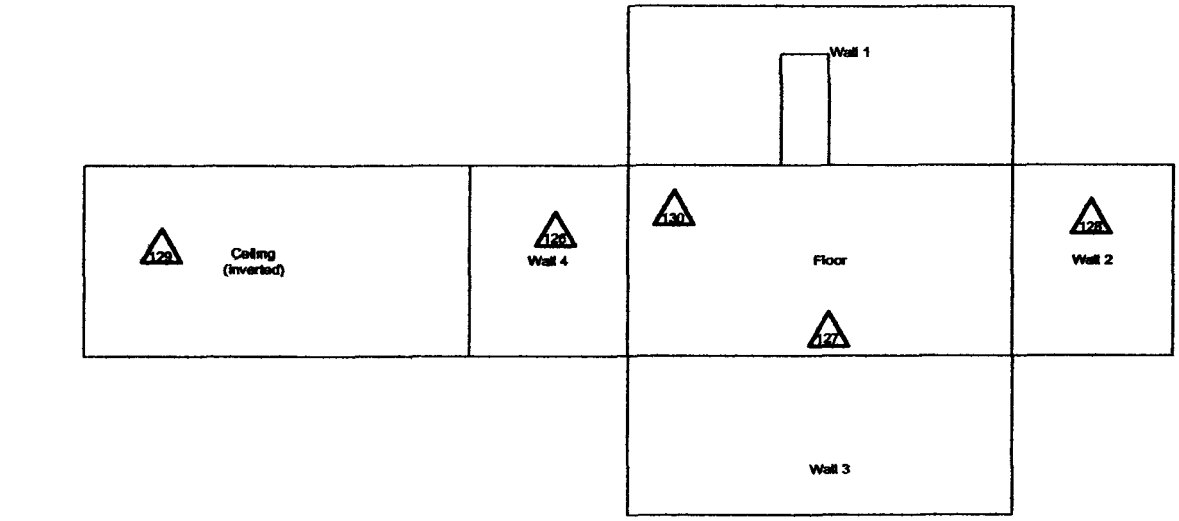
236

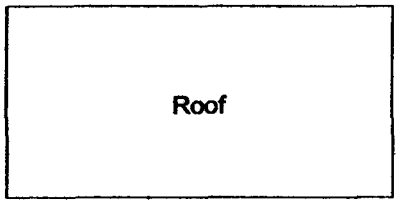
CHEMICAL SAMPLE MAP

Building: 367 Interior & Exterior

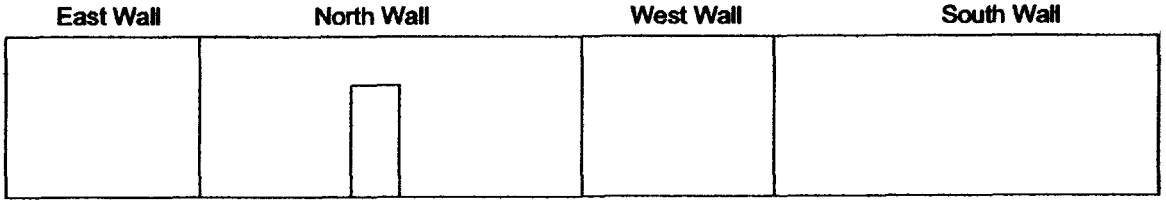
Building 367

Interior





Exterior



SURVEY MAP LEGEND

- Asbestos Sample Location
- Beryllium Sample Location
- Lead Sample Location
- RCRA/CERCLA Sample Location
- PCB Sample Location
- Open/Inaccessible Area
- Area in Another Survey Unit

N

0 FEET 15

0 METERS 5

1 inch = 12 feet 1 grid sq = 1 sq. m.

U S Department of Energy
Rocky Flats Environmental Technology Site

Prepared by: GIS Dept. 303-966 7707

Prepared for: [redacted]

DynCorp
THE ART OF TECHNOLOGY

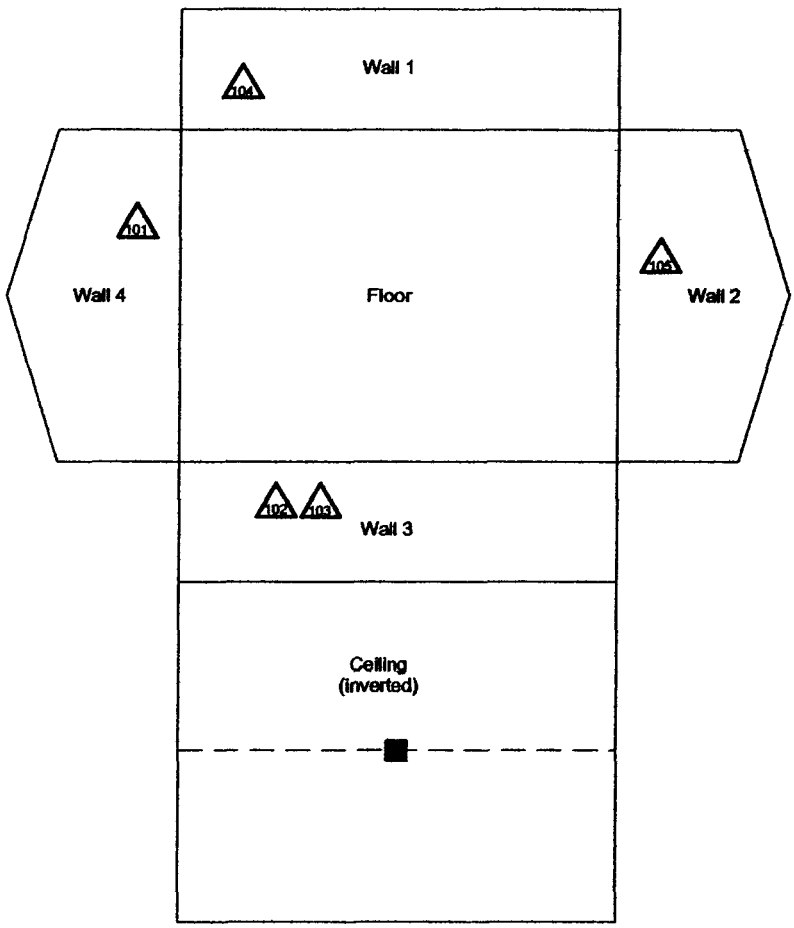
MAP ID. 02-0569/367-BE September 23, 2002

237

CHEMICAL SAMPLE MAP

Building 553 Interior

553 Interior



SURVEY MAP LEGEND

- Asbestos Sample Location
- Beryllium Sample Location
- Lead Sample Location
- RCRA/CERCLA Sample Location
- PCB Sample Location
- Open/Inaccessible Area
- Area in Another Survey Unit

N

0 FEET 25

0 METERS 8

1 inch = 18 feet 1 grid sq. = 1 sq. m

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Prepared by: GIS Dept. 303-966-7707

DynCorp
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Prepared for:

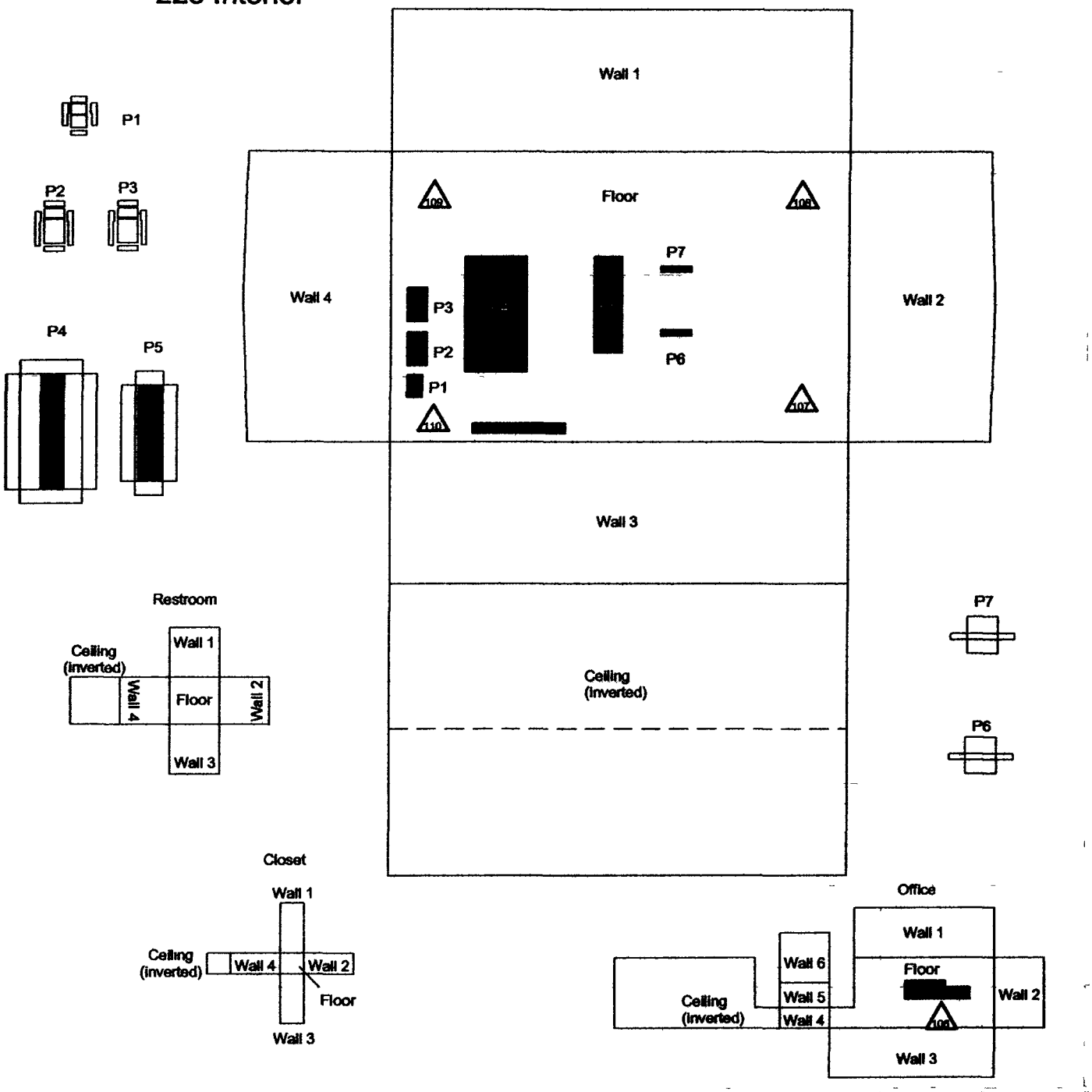
MAP ID 02-0589/553-IN-BE

August 8, 2002

238

CHEMICAL SAMPLE MAP

Building 223 Interior



SURVEY MAP LEGEND

- Asbestos Sample Location
- Beryllium Sample Location
- Lead Sample Location
- RCRA/CERCLA Sample Location
- PCB Sample Location
- Open/Inaccessible Area
- Area in Another Survey Unit

N

0 FEET 30

0 METERS 10

1 inch = 24 feet 1 grid sq = 1 sq m.

US Department of Energy
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Prepared by: GIS Dept. 303-966-7707

Prepared for:

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THE ART OF TECHNOLOGY

MAP ID 02-0589/223-IN-BE

August 8, 2002

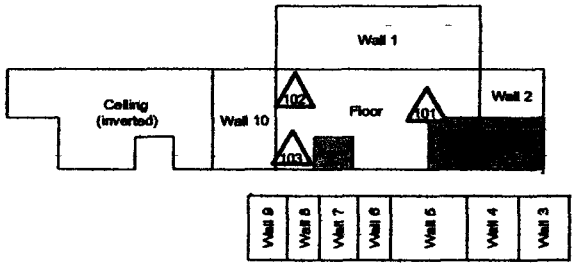
239

CHEMICAL SAMPLE MAP

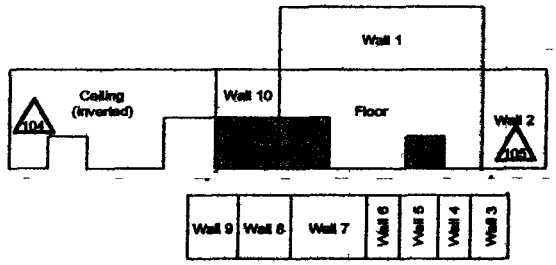
Building: T760A

T760A Interior

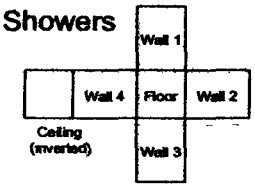
Men's Room



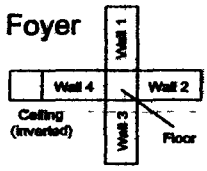
Women's Room



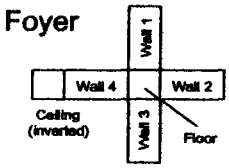
Showers



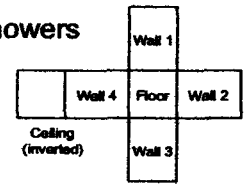
Foyer



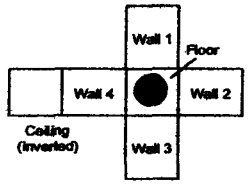
Foyer

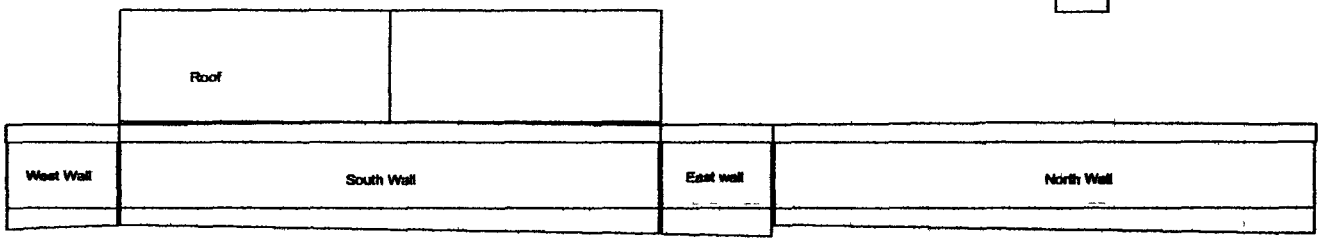


Showers

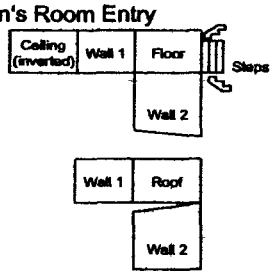


Utility Room



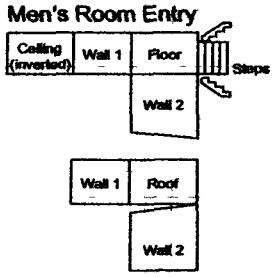


Men's Room Entry



Utility Room Deck

Men's Room Entry



T760A Exterior

SURVEY MAP LEGEND

- Asbestos Sample Location
- Beryllium Sample Location
- Lead Sample Location
- RCRA/CERCLA Sample Location
- PCB Sample Location
- Open/Inaccessible Area
- Area in Another Survey Unit

N

0 FEET 30

0 METERS 10

1 inch = 24 feet 1 grid sq = 1 sq m.

U S Department of Energy
Rocky Flats Environmental Technology Site

Prepared by: GIS Dept 303-966-7707

DynCorp
THE ART OF TECHNOLOGY

Prepared for:

MAP ID 02-0012/T760A-BE

Sept 25, 2002

ATTACHMENT E

Data Quality Assessment (DQA) Detail

DATA QUALITY ASSESSMENT (DQA)

VERIFICATION & VALIDATION OF RESULTS

V&V of the data confirmed that appropriate quality controls were implemented throughout the sampling and analysis process, and that any substandard controls resulted in qualification or rejection of the data in question The required quality controls and their implementation were summarized in a tabular, checklist format for each category of data – radiological surveys and chemical analyses

DQA criteria and results are provided in a tabular format for each suite of surveys or chemical analyses performed, the radiological survey assessment is provided in Table E-1, asbestos in E-2, and beryllium in E-3 A data completeness summary for all results is given in Table E-4

All relevant Quality records supporting this report are maintained in the RISS Characterization Project Files This report will be submitted to the CERCLA Administrative Record for permanent storage within 30 days of approval by the Regulators All radiological data are organized into Survey Unit Packages, which correlate to unique (MARSSIM) Survey Units Chemical data are organized by RIN (Report Identification Number) and are traceable to the sample number and corresponding sample location

Beta/gamma survey designs were not implemented for this RLCR based on the conservatism of the transuranic limits used as DCGLs in the unrestricted release decision process Survey designs were implemented for this cluster based on the transuranic limits used as DCGLs in the unrestricted release decision process Elevated alpha activity on equipment was allowed to decay per RSP 16 02, re-surveyed, and evaluated against the transuranic $DCGL_w$ unrestricted release limits (100 dpm/100cm^2) All re-survey results were less than the transuranic unrestricted release limits and are reported in the TSA data summary For elevated alpha activity on exterior Survey Unit locations, coupon samples were taken and analyzed by ISOCS Canberra gamma spectroscopy No transuranic isotope activity was detected, elevated activity was determined to be uranium and/or other naturally occurring isotope activity Consequently, coupon sample results were evaluated against, and were less than the uranium $DCGL_w$ (5,000 dpm/100cm^2) unrestricted release limit On this basis, elevated transuranic TSA net activity is reported as zero (0) in the TSA exterior data summaries, as applicable

Consistent with EPA's G-4 DQO process, the radiological survey design was optimized by checking actual measurement results (acquired during pre-demolition surveys) against model output with original estimates Use of actual sample/survey (result) variances in the MARSSIM DQO model confirms that an adequate number of surveys were acquired

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DQA SUMMARY

In summary, the data presented in this report have been verified and validated relative to the quality requirements and project decisions as stated in the original DQOs All data are useable based on qualifications stated herein and are considered satisfactory without qualification All media surveyed and sampled yielded results less than their associated action levels and with acceptable certainties, except asbestos Asbestos containing materials (friable and non-friable) identified in B112, 553 and T371A will be managed and disposed of in compliance with Environmental Protection Agency (EPA) and Colorado Department of Public Health and Environment (CDPHE) regulations and therefore, do not impact project decisions (i e , classification as Type 1 facilities) All beryllium results were less than associated action levels (0 02 $\mu g/100cm^2$) and also confirmed a Type 1 facility classification

Based upon an independent review of the radiological data, it is determined that the original project DQOs satisfied MARSSIM guidance All facility contamination levels were below unrestricted release levels confirming Type 1 facility classification Additionally, minimum survey requirements were met, sampling/survey protocol was performed in accordance with applicable RSPs and survey units were properly bounded

Chain of Custody was intact, documentation was complete, hold times were acceptable (where applicable,) and packaging integrity/custody seals were maintained throughout the sampling/analysis process Level 2 Isolation Controls have been posted to prevent the inadvertent introduction of contamination into the facilities On this basis, Buildings 112, 223, 367, 553, T371A, T371C, T371D, T371E, T371F and T760A meet the unrestricted release criteria with the confidences stated herein

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Table E-1 V&V of Radiological Results

V&V CRITERIA, RADIOLGICAL SURVEYS		K-H RSP 16 00 Series MARSSIM (NUREG-1575)		
QUALITY REQUIREMENTS				
	Parameters	Measure	frequency	COMMENTS
ACCURACY	initial calibrations	90%<x<110%	≥1	Multi-point calibration through the measurement range encountered in the field, programmatic records
	daily source checks	80%<x<120%	≥1/day	Performed daily/within range
	local area background Field	typically < 10 dpm	≥1/day	All local area backgrounds were within expected ranges (i e , no elevated anomalies)
PRECISION	field duplicate measurements for TSA	≥5% of real survey points	≥10% of reals	N/A
REPRESENTATIVENESS	MARSSIM methodology Survey Units B112-A-001, B112-B-002, B223-A-001, B223-B-002, B553-A-001, B553-B-002, T371-A-001, T371-A-002, T371-A-003, T371-A-004, T371-A-005, T371-B-006 and T760A-A-001)	statistical and biased	NA	Random w/ statistical confidence
	Survey Maps	NA	NA	Random and biased measurement locations controlled/mapped to ±1meter
	Controlling Documents (Characterization Pkg, RSPs)	qualitative	NA	Refer to the Characterization Package (planning document) for field/sampling procedures (located in RISS Project files), thorough documentation of the planning, sampling/analysis process, and data reduction into formats
COMPARABILITY	units of measure	dpm/100cm^2	NA	Use of standardized engineering units in the reporting of measurement results
COMPLETENESS	Plan vs Actual surveys usable results vs unusable	>95% >95%	NA	See Table E-4 for details
SENSITIVITY	detection limits	TSA ≤50 dpm/100cm^2 RA ≤10 dpm/100cm^2	all measures	RLC performed to PDSP, MDAs ≤ ½ DCGL$_w$ per MARSSIM guidelines

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Table E-2 V&V of Asbestos Results

V&V CRITERIA, CHEMICAL ANALYSES		DATA PACKAGE		
ASBESTOS	METHOD EPA 600/R-93/116	LAB ---->	Reservoirs Environmental, Inc	
QUALITY REQUIREMENT		RIN ---->	02Z0968 (T760A) 02Z0870 (B112) 02Z0927 (B223) 02Z0962 (T371A &T371C-T371F)	
		Measure	Frequency	COMMENTS
ACCURACY	Calibrations Initial/continuing	below detectable amounts	≥1	Semi-quantitative, per (microscopic) visual estimation
PRECISION	Actual Number Sampled LCSD Lab duplicates	all below detectable amounts	≥ 77 samples	Semi-quantitative, per (microscopic) visual estimation
REPRESENTATIVENESS	COC	Qualitative	NA	Chain-of-Custody intact completed paperwork, containers w/ custody seals
	Hold times/preservation	Qualitative	NA	N/A
	Controlling Documents (Plans, Procedures, maps, etc)	Qualitative	NA	See original Chemical Characterization Package (planning document), for field/sampling procedures (located in project file,) thorough documentation of the planning, sampling/analysis process, and data reduction into formats
COMPARABILITY	Measurement Units	% by bulk volume	NA	Use of standardized engineering units in the reporting of measurement results
COMPLETENESS	Plan vs Actual samples Usable results vs unusable	Qualitative	NA	See Table E-4, final number of samples at Certified Inspector's discretion
SENSITIVITY	Detection limits	<1% by volume	all measures	N/A

Table E-3 V&V of Beryllium Results

V&V CRITERIA, CHEMICAL ANALYSES		DATA PACKAGE		
BERYLLIUM	Prep NMAM 7300 METHOD OSHA ID-125G	LAB ---->	Johns Manville, Littleton, Co	
QUALITY REQUIREMENTS		RIN ---->	02Z0969 (T760A) 02D1510 (B112) 02Z0904 (B223 and B553) 02Z0961 (B367 & T371A and T371C thru T371F)	
		Measure	Frequency	COMMENTS
ACCURACY	Calibrations Initial	linear calibration	≥1	No qualifications significant enough to change project decisions, i e , classification of Type 1 facility confirmed All results were below associated action levels
	Continuing	80%<%R<120%	≥1	
	LCS/MS	80%<%R<120%	≥1	
	Blanks - lab & field	<MDL	≥1	
	interference check std (ICP)	NA	NA	
PRECISION	LCSD	80%<%R<120% (RPD<20%)	≥1	
	field duplicate	all results < RL	≥1	
REPRESENTATIVENESS	COC	Qualitative	NA	
	hold times/preservation	Qualitative	NA	
	Controlling Documents (Plans, Procedures, maps, etc)	Qualitative	NA	
COMPARABILITY	*measurement units*	ug/100cm^2	NA	
COMPLETENESS	Plan vs Actual samples usable results vs unusable	>95% >95%	NA	
SENSITIVITY	detection limits	MDL of 0 012 ug/100cm^2	all measures	

Table E-4 Data Completeness Summary

ANALYTE	Building/Area /Unit	Sample Number Planned (Real & QC)[A]	Sample Number Taken (Real & QC)	Project Decisions (Conclusions) & Uncertainty	Comments (RIN, Analytical Method, Qualifications, etc)
Asbestos	T760A	6 biased	6 biased (interior)	No ACM present, all results < 1% by volume	40 CFR763 86, 5 CCR 1001-10, EPA 600/R-93/116 RIN02Z0968
Asbestos	B112	25 biased	14 biased (6 interior and 8 exterior)	ACM present > 1% by volume (8 sample locations)	40 CFR763 86, 5 CCR 1001-10, EPA 600/R-93/116 RIN02Z0870 Eight exterior sample locations > 1% by volume ACM range of 1% to 10% Chrysotile and 1 5 to 2 point count
Asbestos	B223	12 biased	6 biased (interior)	All results < 1% by volume	40 CFR763 86, 5 CCR 1001-10, EPA 600/R-93/116 RIN02Z0927
Asbestos	T371A	6 biased	12 biased (9 interior and 3 exterior)	ACM present > 1% by volume (3 sample locations)	40 CFR763 86, 5 CCR 1001-10, EPA 600/R-93/116 RIN02Z0962 Three exterior sample locations > 1% by volume ACM range of 4% to 6% Chrysotile
Asbestos	T371C	17 biased	20 biased	No ACM present, all results < 1% by volume	40 CFR763 86, 5 CCR 1001-10, EPA 600/R-93/116 RIN02Z0962
Asbestos	T371D and E	10 biased	13 biased (interior)	No ACM present, all results < 1% by volume	40 CFR763 86, 5 CCR 1001-10, EPA 600/R-93/116 RIN02Z0962
Asbestos	T371F	4 biased	6 biased (interior)	No ACM present, all results < 1% by volume	40 CFR763 86, 5 CCR 1001-10, EPA 600/R-93/116 RIN02Z0962
Beryllium	T760A	5 biased	5 biased	No elevated contamination found at any location	OSHA ID-125G – RIN02Z0969 No results above action level (0 2ug/100cm^2) or investigative level (0 1 ug/100cm^2)

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Table E-4 Data Completeness Summary

ANALYTE	Building/Area /Unit	Sample Number Planned (Real & QC)[A]	Sample Number Taken (Real & QC)	Project Decisions (Conclusions) & Uncertainty	Comments (RIN, Analytical Method, Qualifications, etc)
Beryllium	B112	10 biased	10 biased	No elevated contamination found at any location	OSHA ID-125G – RIN02D1510 No results above action level (0 2ug/100cm^2) or investigative level (0 1 ug/100cm^2)
Beryllium	B223	5 biased	5 biased	No elevated contamination found at any location	OSHA ID-125G – RIN02Z0904 No results above action level (0 2ug/100cm^2) or investigative level (0 1 ug/100cm^2)
Beryllium	B553	5 biased	5 biased	No elevated contamination found at any location	OSHA ID-125G – RIN02Z0904 No results above action level (0 2ug/100cm^2) or investigative level (0 1 ug/100cm^2)
Beryllium	T371A	5 biased	5 biased	No elevated contamination found at any location	OSHA ID-125G – RIN02Z0961 No results above action level (0 2ug/100cm^2) or investigative level (0 1 ug/100cm^2)
Beryllium	T371C	5 biased	10 biased	No elevated contamination found at any location	OSHA ID-125G – RIN02Z0961 No results above action level (0 2ug/100cm^2) or investigative level (0 1 ug/100cm^2)
Beryllium	T371D and E	10 biased	10 biased	No elevated contamination found at any location	OSHA ID-125G – RIN02Z0961 No results above action level (0 2ug/100cm^2) or investigative level (0 1 ug/100cm^2)
Beryllium	T371F	5 biased	5 biased	No elevated contamination found at any location	OSHA ID-125G – RIN02Z0961 No results above action level (0 2ug/100cm^2) or investigative level (0 1 ug/100cm^2)
Beryllium	B367	5 biased	5 biased	No elevated contamination found at any location	OSHA ID-125G – RIN02Z0961 No results above action level (0 2ug/100cm^2) or investigative level (0 1 ug/100cm^2)
Radiological	Survey Area A Survey Unit B112-A-001 B112 (interior)	53 TSAs (15 random/38 biased) & 53 Smears (15 random/38 biased) 3 QC TSA 5% scan	53 TSAs (15 random/38 biased) & 53 Smears (15 random/38 biased) 3 QC TSA 5% scan (interior)	No elevated contamination at any location, all values below PDS unrestricted release levels	Uranium and/or Transuranic DCGL as applicable

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Table E-4 Data Completeness Summary

ANALYTE	Building/Area /Unit	Sample Number Planned (Real & QC)[A]	Sample Number Taken (Real & QC)	Project Decisions (Conclusions) & Uncertainty	Comments (RIN, Analytical Method, Qualifications, etc)
Radiological	Survey Area B Survey Unit B112-B-002 B112 (exterior)	20 TSAs (15 random/5 biased) & 20 Smears (15 random/5 biased) 2 QC TSA 5% scan	20 TSAs (15 random/5 biased) & 20 Smears (15 random/5 biased) 2 QC TSA 5% scan (exterior)	No elevated contamination at any location, all values below PDS unrestricted release levels	Uranium and/or Transuranic DCGL as applicable
Radiological	Survey Area A Survey Unit B223-A-001 B223 (interior)	25 TSAs (15 random/10 biased) & 25 Smears (15 random/10 biased) interior facility 4 QC TSA 5% scan and 50 TSAs & 50 Smears (equipment/biased)	25 TSAs (15 random/10 biased) & 25 Smears (15 random/10 biased) 4 QC TSA 5% scan (interior) and 50 TSAs & 50 Smears (equipment/biased)	No elevated contamination at any location, all values below PDS unrestricted release levels	Uranium and/or Transuranic DCGL as applicable Equipment will be released from the building prior to D&D activities through the Property Release Evaluation process
Radiological	Survey Area B Survey Unit B223-B-002 B223 (exterior)	20 TSAs (15 random/5 biased) & 20 Smears (15 random/5 biased) exterior facility 4 QC TSA 5% scan and 50 TSAs & 50 Smears (equipment/biased)	20 TSAs (15 random/5 biased) & 20 Smears (15 random/5 biased) 4 QC TSA 5% scan exterior facility and 50 TSAs (biased) & 50 Smears (equipment/biased)	No elevated contamination at any location, all values below PDS unrestricted release levels	Uranium and/or Transuranic DCGL as applicable Elevated alpha activity on equipment at sample locations 28 (117 2 dpm/100cm^2), 29 (113 4 dpm/100cm^2) and 59 (278 6 dpm/100cm^2) Areas were sealed, allowed to decay and re-surveyed All re-survey results were below the transuranic DCGL$_w$ (100 dpm/100cm^2) unrestricted release limits Equipment will be released from the building prior to D&D activities through the Property Release Evaluation process

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Table E-4 Data Completeness Summary

ANALYTE	Building/Area /Unit	Sample Number Planned (Real & QC)[A]	Sample Number Taken (Real & QC)	Project Decisions (Conclusions) & Uncertainty	Comments (RIN, Analytical Method, Qualifications, etc)
Radiological	Survey Area A Survey Unit B553-A-001 B553 (interior)	25 TSAs (15 random/10 biased) & 25 Smears (15 random/10 biased) 2 QC TSA 10% scan	25 TSAs (15 random/10 biased) & 25 Smears (15 random/10 biased) 2 QC TSA 10% scan	No elevated contamination at any location, all values below PDS unrestricted release levels	Uranium and/or Transuranic DCGL as applicable
Radiological	Survey Area B Survey Unit B553-B-002 B553 (exterior)	20 TSAs (15 random/5 biased) & 20 Smears (15 random/5 biased) 2 QC TSA 5% scan	20 TSAs (15 random/5 biased) & 20 Smears (15 random/5 biased) 2 QC TSA 5% scan	No elevated contamination at any location, all values below PDS unrestricted release levels	Uranium and/or Transuranic DCGL as applicable Elevated alpha activity at sample location #2 (105 2 dpm/100cm^2) greater than the transuranic DCGL$_w$ (100 dpm/100cm^2) A coupon sample were taken and analyzed by gamma spectroscopy No transuranic isotopes were detected Elevated activity determined to be uranium or other naturally occurring isotopes Sample net activity at these locations were below the Uranium DCGL$_w$ (5,000 dpm/100cm^2) On this basis, sample net activity for the above location is reported as zero (0) in the TSA Data Summary No further investigation is required, all results are below unrestricted release levels
Radiological	Survey Area 3 Survey Unit T371-A-001 B367 (interior and exterior)	17 TSAs (15 random/2 biased) & 17 Smears (15 random/2 biased) 2 QC TSA 5% scan	17 TSAs (15 random/2 biased) & 17 Smears (15 random/2 biased) 2 QC TSA 5% scan (10 interior/7 exterior)	No elevated contamination at any location, all values below PDS unrestricted release levels	Uranium and/or Transuranic DCGL as applicable Elevated alpha activity at sample locations #14 (148 9 dpm/100cm^2) and #15 (112 7 dpm/100cm^2) greater than the transuranic DCGL$_w$ (100 dpm/100cm^2) Coupon samples were taken and analyzed by gamma spectroscopy No transuranic isotopes were detected Elevated activity determined to be uranium or other naturally occurring isotopes Sample net activity at these locations were below the Uranium DCGL$_w$ (5,000 dpm/100cm^2) On this basis, sample net activity for the above locations are reported as zero (0) in the TSA Data Summary No further investigation is required, all results are below unrestricted release levels

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Table E-4 Data Completeness Summary

ANALYTE	Building/Area /Unit	Sample Number Planned (Real & QC)[A]	Sample Number Taken (Real & QC)	Project Decisions (Conclusions) & Uncertainty	Comments (RIN, Analytical Method, Qualifications, etc)
Radiological	Survey Area 3 Survey Unit T371-A-002 T371A (interior and exterior)	20 TSAs (15 random/5 biased) & 20 Smears (15 random/5 biased) 2 QC TSA 5% scan	20 TSAs (15 random/5 biased) & 20 Smears (15 random/5 biased) 2 QC TSA 5% scan (interior & exterior)	No elevated contamination at any location, all values below PDS unrestricted release levels	Uranium and/or Transuranic DCGL as applicable
Radiological	Survey Area 3 Survey Unit T371-A-003 T371D and T371 E (interior and exterior)	20 TSAs (15 random/5 biased) & 20 Smears (15 random/5 biased) 2 QC TSA 5% scan	20 TSAs (15 random/5 biased) & 20 Smears (15 random/5 biased) 2 QC TSA 5% scan (13 interior and 7 exterior)	No elevated contamination at any location, all values below PDS unrestricted release levels	Uranium and/or Transuranic DCGL as applicable Elevated alpha activity at sample locations #14 (138 0 dpm/100cm^2), greater than the transuranic DCGL$_w$ (100 dpm/100cm^2) Location was allowed to decay and re-surveyed, re-survey result also greater than the transuranic DCGL$_w$ (100 dpm/100cm^2) A coupon sample was taken and analyzed by gamma spectroscopy No transuranic isotopes were detected Elevated activity determined to be uranium or other naturally occurring isotopes Sample net activity at this location was below the Uranium DCGL$_w$ (5,000 dpm/100cm^2) On this basis, sample net activity for the above location is reported as zero (0) in the TSA Data Summary No further investigation is required, all results are below unrestricted release levels

Table E-4 Data Completeness Summary

ANALYTE	Building/Area /Unit	Sample Number Planned (Real & QC)[A]	Sample Number Taken (Real & QC)	Project Decisions (Conclusions) & Uncertainty	Comments (RIN, Analytical Method, Qualifications, etc)
Radiological	Survey Area 3 Survey Unit T371-A-004 T371F (interior and exterior)	20 TSAs (15 random/5 biased) & 20 Smears (15 random/5 biased) 2 QC TSA 5% scan	20 TSAs (15 random/5 biased) & 20 Smears (15 random/5 biased) 2 QC TSA 5% scan	No elevated contamination at any location, all values below PDS unrestricted release levels	Uranium and/or Transuranic DCGL as applicable Elevated alpha activity at sample locations #4 (143 5 dpm/100cm^2), #6 (227 2 dpm/100cm^2) and #12 (104 6 dpm/100cm^2) greater than the transuranic DCGL$_w$ (100 dpm/100cm^2) Coupon samples were taken and analyzed by gamma spectroscopy No transuranic isotopes were detected Elevated activity determined to be uranium or other naturally occurring isotopes Sample net activity at these locations were below the Uranium DCGL$_w$ (5,000 dpm/100cm^2) On this basis, sample net activity for the above locations are reported as zero (0) in the TSA Data Summary No further investigation is required, all results are below unrestricted release levels
Radiological	Survey Area 3 Survey Unit T371-A-005 T371C (interior)	25 TSAs (15 random/10 biased) & 25 Smears (15 random/10 biased) 2 QC TSA 5% scan	25 TSAs (15 random/10 biased) & 25 Smears (15 random/10 biased) 2 QC TSA 5% scan (interior)	No elevated contamination at any location, all values below PDS unrestricted release levels	Uranium and/or Transuranic DCGL as applicable
Radiological	Survey Area 3 Survey Unit T371-B-006 T371C (exterior)	22 TSAs (17 random/5 biased) & 22 Smears (17 random/5 biased) 2 QC TSA 5% scan	22 TSAs (17 random/5 biased) & 22 Smears (17 random/5 biased) 2 QC TSA 5% scan (exterior)	No elevated contamination at any location, all values below PDS unrestricted release levels	Uranium and/or Transuranic DCGL as applicable Elevated alpha activity at sample locations #3 (161 2 dpm/100cm^2), greater than the transuranic DCGL$_w$ (100 dpm/100cm^2) Location was allowed to decay and re-surveyed, re-survey result (52 7 dpm/100cm^2) was less than the transuranic DCGL$_w$ (100 dpm/100cm^2) and is the value reported in the TSA Data Summary

Table E-4 Data Completeness Summary

ANALYTE	Building/Area /Unit	Sample Number Planned (Real & QC)[A]	Sample Number Taken (Real & QC)	Project Decisions (Conclusions) & Uncertainty	Comments (RIN, Analytical Method, Qualifications, etc)
Radiological	Survey Area 4 Survey Unit 760A-A-001 T760A (interior and exterior)	25 TSAs (15 random/10 biased) & 25 Smears (15 random/10 biased) 2 QC TSA 5% scan	25 TSAs (15 random/10 biased) & 25 Smears (15 random/10 biased) 2 QC TSA 5% scan (15 interior/10 exterior)	No elevated contamination at any location, all values below PDS unrestricted release levels	Uranium and/or Transuranic DCGL as applicable Elevated alpha activity at sample locations #2 (101 7 dpm/100cm^2), #16 (114 1 dpm/100cm^2) and #17 (108 6 dpm/100cm^2) greater than the transuranic DCGL$_w$ (100 dpm/100cm^2) A coupon sample was taken from sample location #16 (highest reading) and analyzed by gamma spectroscopy No transuranic isotopes were detected Elevated activity determined to be uranium or other naturally occurring isotopes Sample net activity at this location was below the Uranium DCGL$_w$ (5,000 dpm/100cm^2) On this basis, sample net activity for the above locations are reported as zero (0) in the TSA Data Summary No further investigation is required, all results are below unrestricted release levels

A - Asbestos Sample Number Planned was only an estimate, actual sample numbers are determined during the inspection

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Rocky Flats Environmental Technology Site

RECONNAISSANCE LEVEL CHARACTERIZATION REPORT (RLCR)

CLOSURE PROJECT FOR BUILDINGS 112, 223, 367, 553, T371A, T371C, T371D, T371E, T371F and T760A

REVISION 0

October 7, 2002

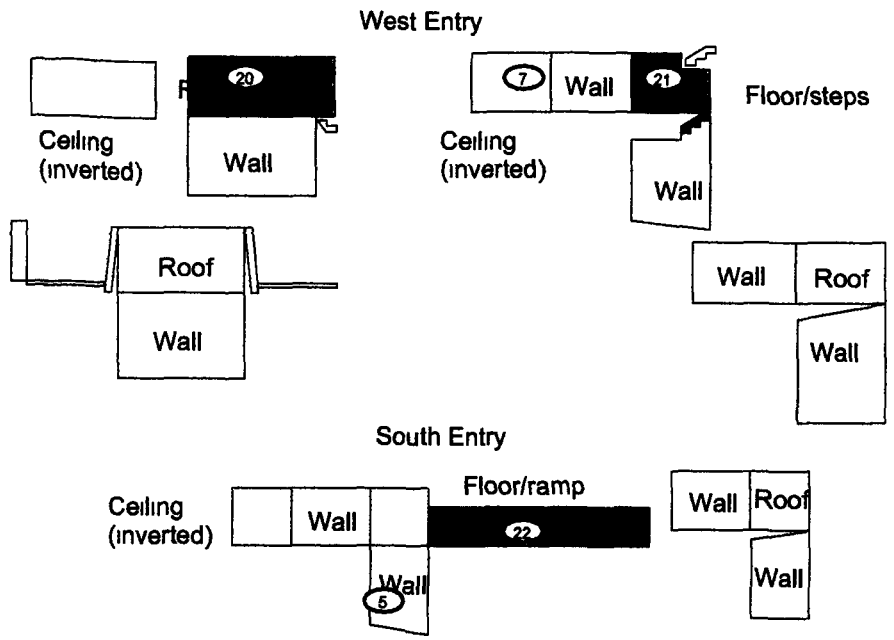
CLASSIFICATION REVIEW NOT REQUIRED PER EXEMPTION NUMBER CEX-005-02

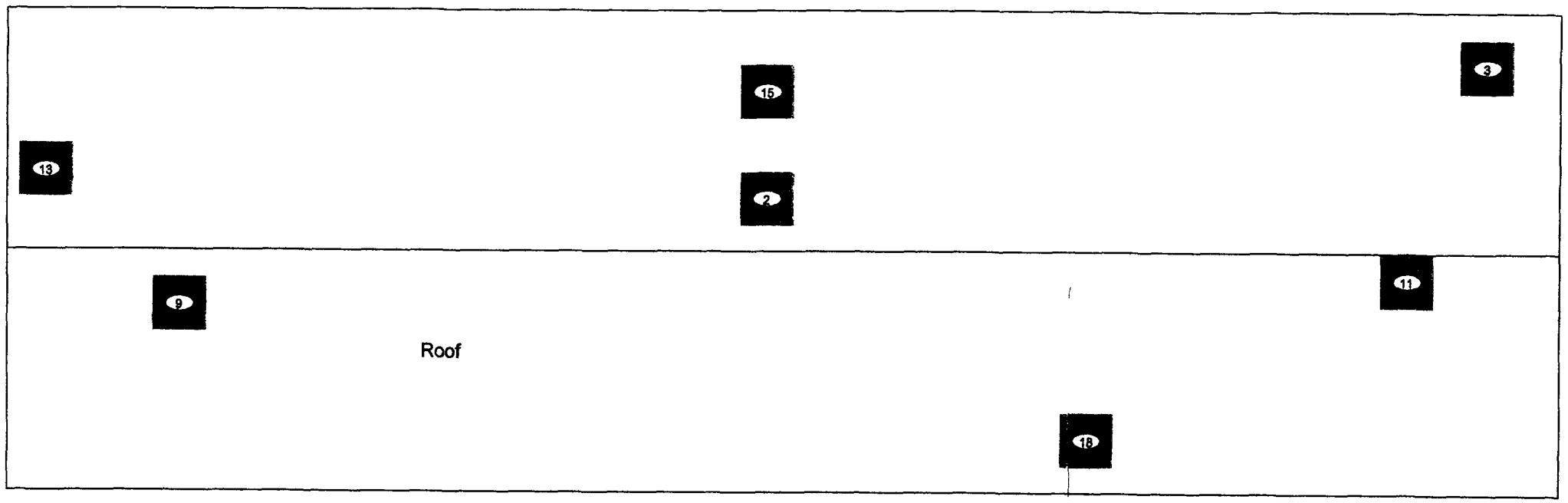
255/255

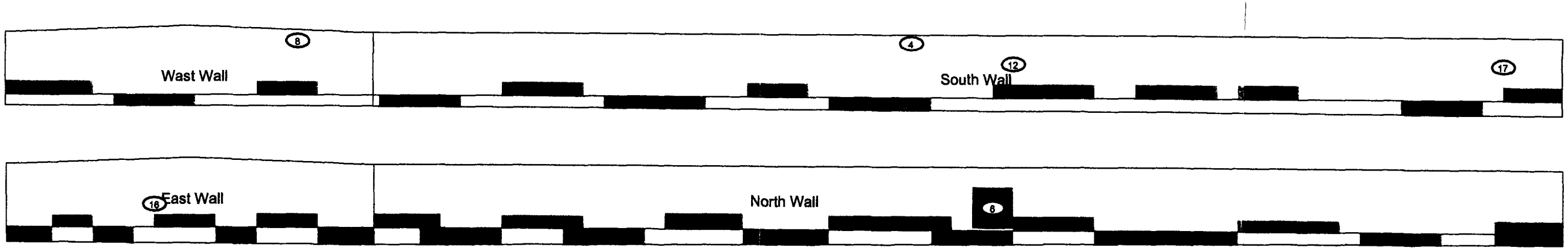
PRE DEMOLITION SURVEY FOR T371C CLUSTER

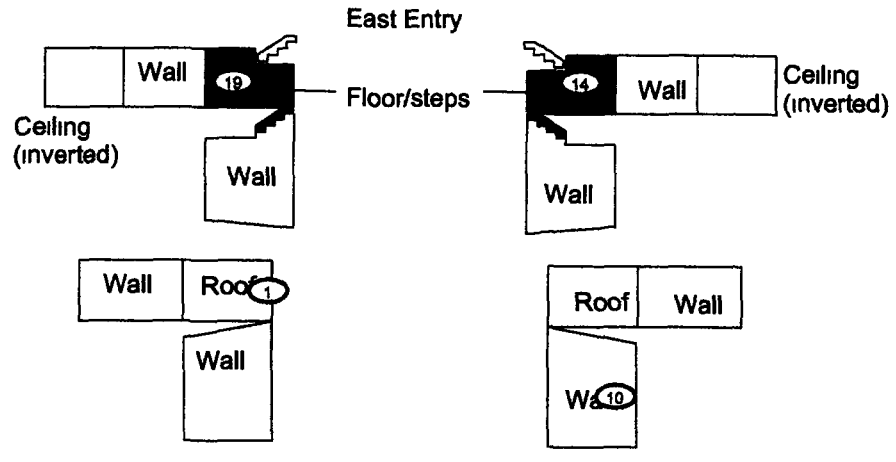
Survey Area 3 **Survey Unit. T371-B-006** **Classification 3**
Building T371C
Survey Unit Description Exterior of Building
Total Area 1742 sq m **Total Roof Area 1071 sq m**

T371C Exterior









Scan Area

SURVEY MAP LEGEND
- Smear & TSA Location
- Smear TSA & Sample Location
- Open/Inaccessible Are
- Area in Another Survey Unit

Neither the United States Government nor Kaiser Hi Co nor DynCorp I&ET nor any agency thereof, nor any their employees, makes any warranty express or implied, or assumes any legal liability or responsibility for the accuracy completeness, or usefulness of any information, apparatus, product, or process disclosed, or represents that its use would not infringe privately owned rights.

Scan Survey Inform tion
Survey Instrument ID #(s) 1, 7
RCT ID #( ) 2, 3

N

0 FEET 25
0 METERS 8
1 inch 18 feet 1 grid sq 1 sq m.

US Department of Energy
Rocky Flats Environmental Technology Site

Prepared by GIS Dept 303-966 770

DynCorp

Prepared for

MAP ID 02-0589/T371C-EXSC October 7, 2002

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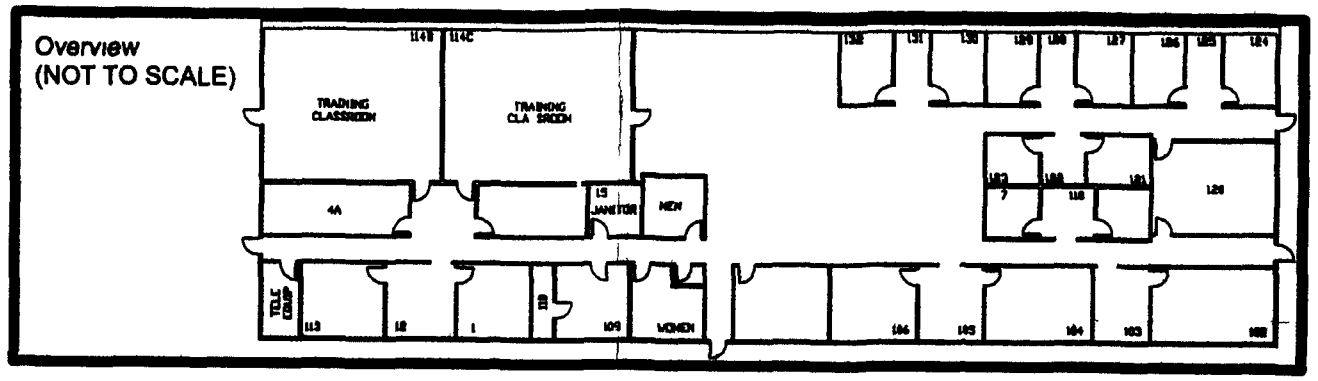
CHEMICAL SAMPLE MAP

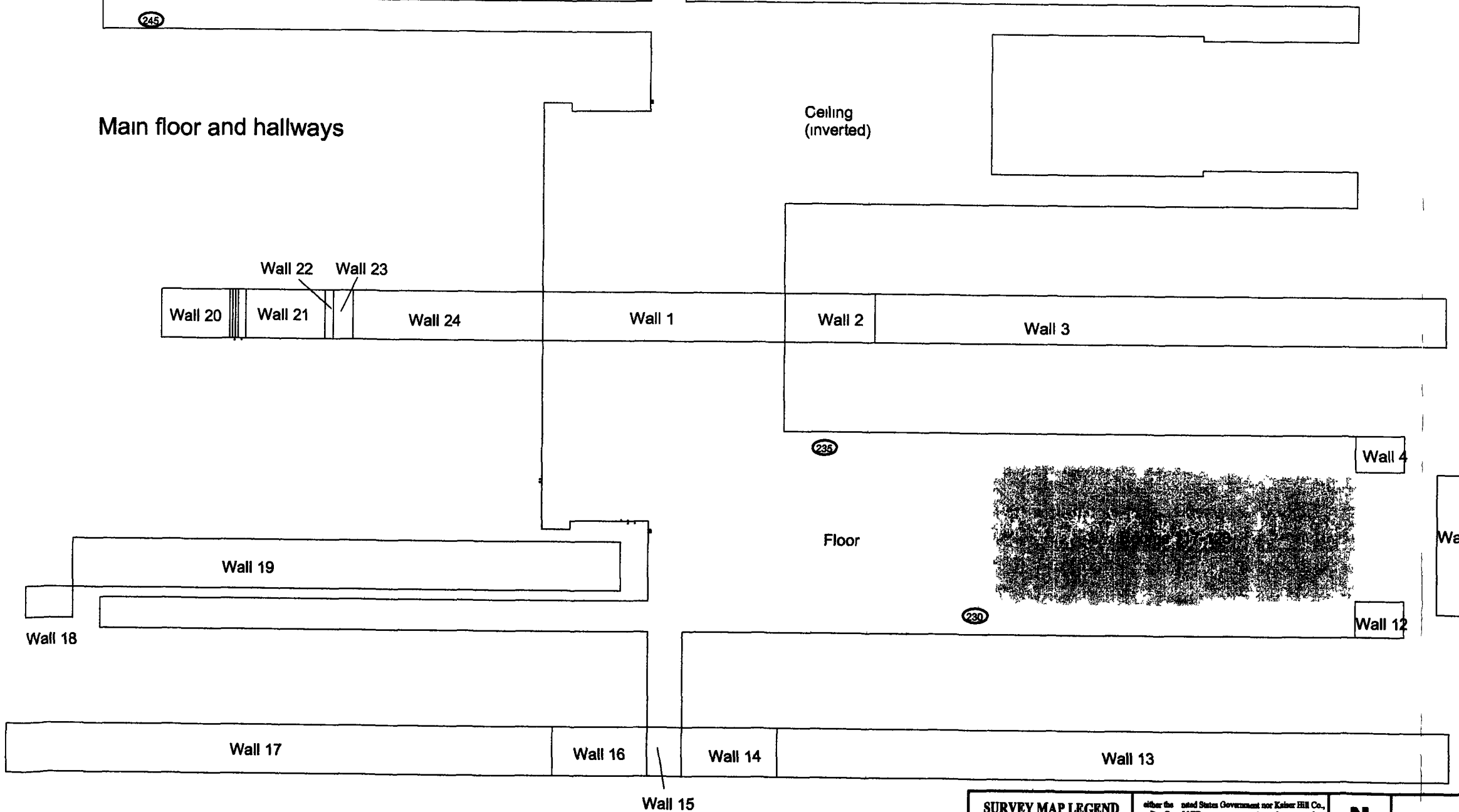
Building T371C

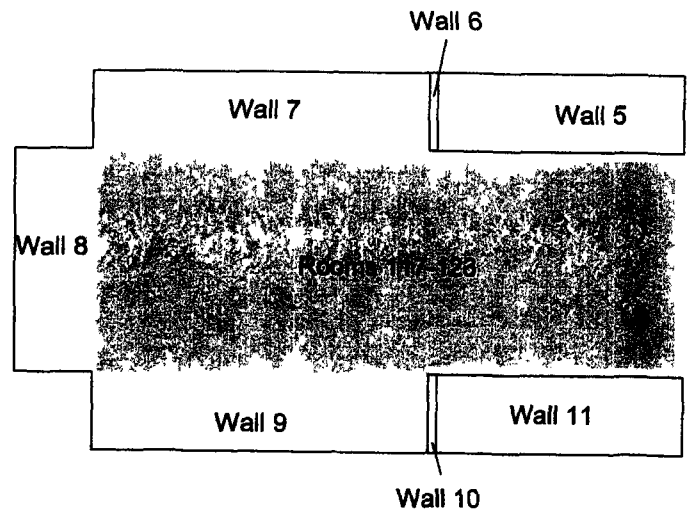


Main floor and hallways

Ceiling
(inverted)

Floor





SURVEY MAP LEGEND

- Asbestos Sample Location
- Beryllium Sample Location
- Lead Sample Location
- RCRA/CERCLA Sample Location
- PCB Sample Location
- Open/Inaccessible Area
- Area in Another Survey Unit

N

0 FEET 25

0 METERS 8

1 inch = 18 feet 1 grid sq 1 sq m.

US Department of Energy
Rocky Flats Environmental Technology Site

Prepared by GIS Dept 303-966-7707

Prepared for:

DynCorp

MAP ID. 02-0589/T371C-IN1-ABSeptember 23, 2002

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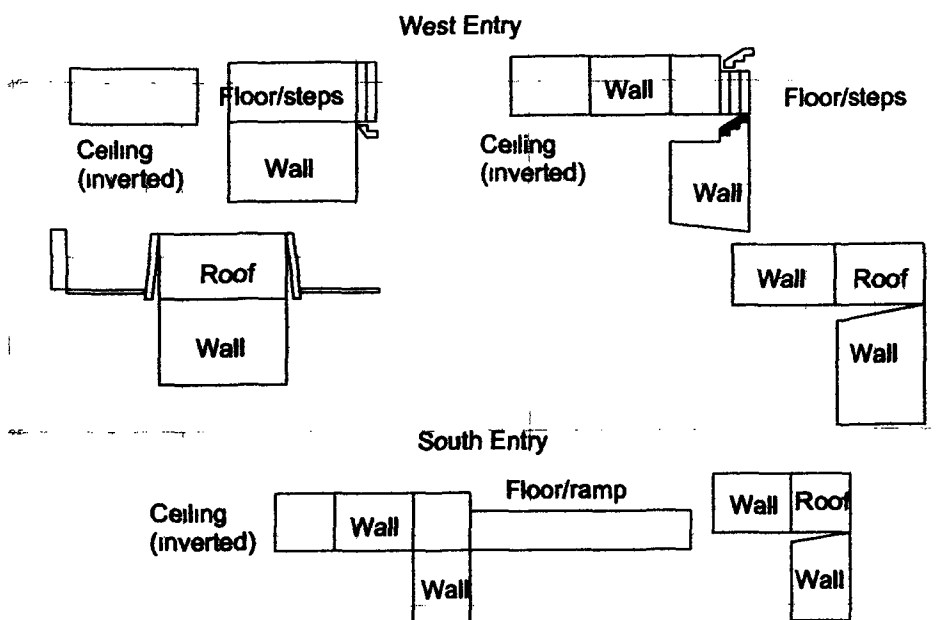
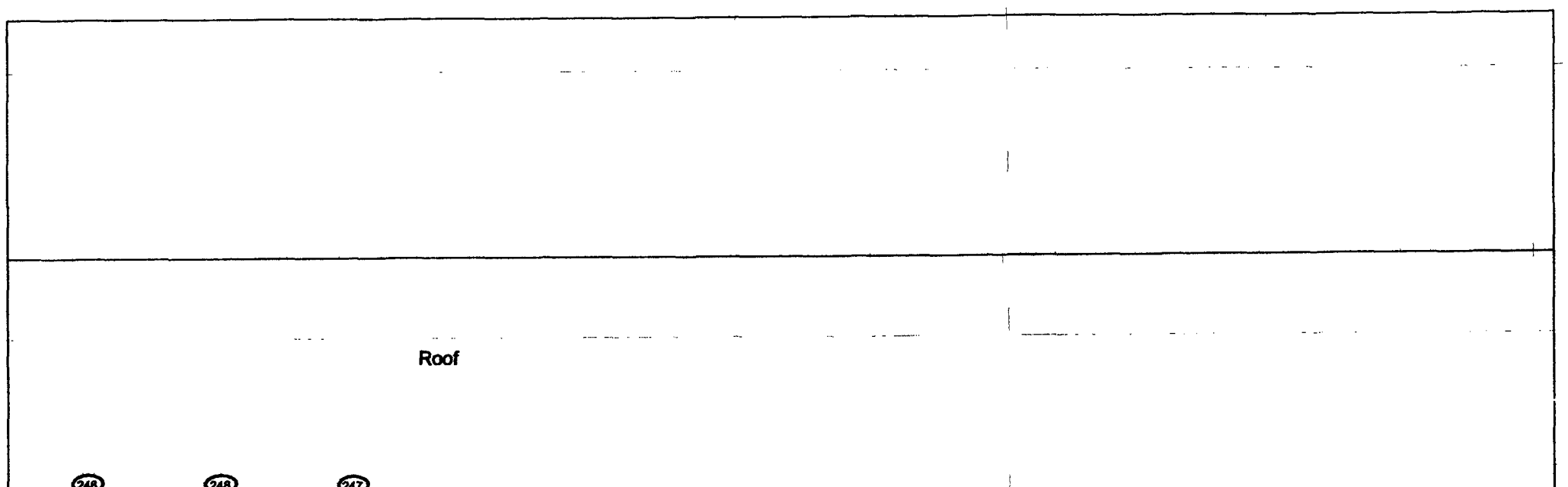
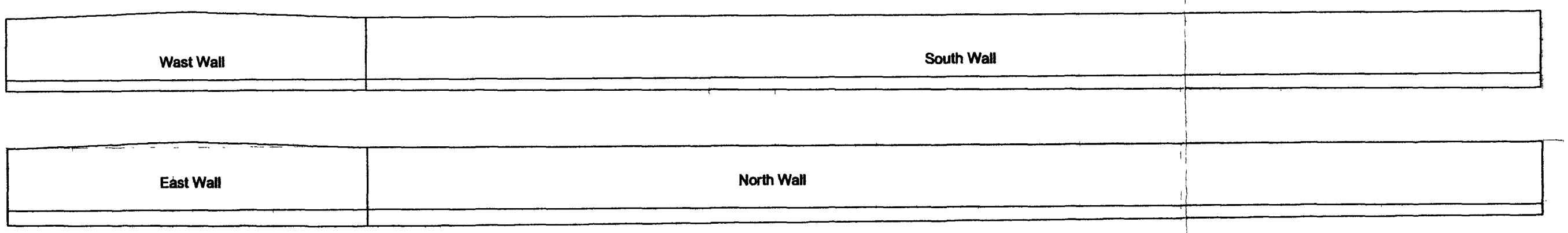
CHEMICAL SAMPLE MAP

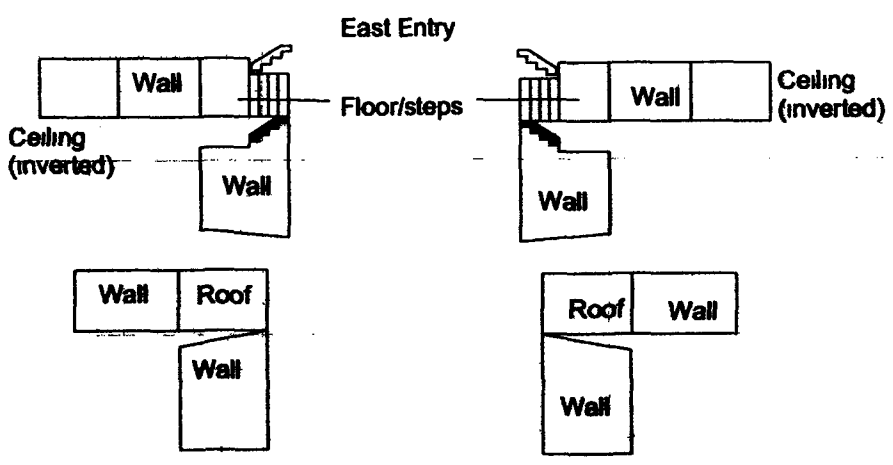
Building T371C

T371C Exterior









SURVEY MAP LEGEND

- Asbestos Sample Location
- Beryllium Sample Location
- Lead Sample Location
- RCRA/CERCLA Sample Location
- PCB Sample Location
- Open/Inaccessible Area
- Area in Another Survey Unit

N

0 FEET 25

0 METERS 8

1 inch = 18 feet 1 grid sq. = 1 sq. m.

U.S. Department of Energy
Rocky Flats Environmental Technology Site

Prepared by: GIS Dept. 303-966-7797

Prepared for:

DynCorp

MAP ID: 02-0099/T371C-EX-AB September 23, 2002